THE

AMERICAN FARMER,

AND

SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . *Virg.*

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WORK FOR SEPTEMBER.

As it is in this month that he who relies upon wheat as his money crop, should prepare the soil to receive the seed, we may be indulged while we admonish every wheat grower, to permit no circumstance whatsoever to interfere with his doing full justice to his interests. No matter what else may claim his attention—whether of pleasure or business—he should push ahead with those labors, the consummation of which enable him to realize that most delightful position of all others to a farmer—of being in advance of his work. The General, by delay, may lose an opportunity of striking a decisive blow at a propitious time, but if he be skilful, persevering, and enterprising—if he possess the powers of combination, and of converting an error into a virtue—he may, by a judicious movement, make amends for the fault of procrastination, by increased energy, and by the performance of some one of those acts of noble daring and generous enterprise, which challenge the admiration of friends by its brilliancy of achievement, and overpower an enemy by the mastery and peril by which it may be performed. But not so is it with the tiller of the earth, a month lost to him in *time*, may, despite his exertions, however assiduously directed, prove fatal to his prospects throughout the ensuing year. For that month unimproved, may jeopard all his subsequent plans, and put to hazard those visions of prospective gains, upon which his mind may have feasted in fond anticipation.

But while we advise to promptness of action, we would equally impress upon our brethren this truth—that almost as much depends upon having whatever may be undertaken, *done well*, as it does in doing it at the *right time*.

Having got through with our preliminary remarks, we will venture on calling attention to a few of the numerous things which should be attended to during this month

On the Farm.

Fallowing of ground for Fall Grain.—This work should be begun without a day's delay, and should be followed up until the whole shall have been completed. In the preparation of the soil, no pains must be spared to put it in the best possible condition, as much depends upon the fineness of the tilth. All possible care must be taken to have the ground ploughed with truthfulness, so that every inch of it, when it comes to be submitted to the operation of the harrow, may be subjected to its pulverizing effects. As to the depth of ploughing, we have never entertained but one opinion, and that is, that the plough should be made to penetrate as deep as the team can thrust it. As to the dread of turning up the *hard-pan*, we confess we have never felt any; for in its constituent elements we have generally expected to find such traces of *potash*, as when submitted to the action of sun and air, would operate favorably upon vegetation, as all virgin clays contain more or less of that invaluable mineral salt—a salt most indispensable to all the grain bearing crops as well as the grasses. Therefore, we say, plough deep, and, if you should, perchance, turn up a portion of the intractable substratum, reduce the lumps by the pressure of the roller, subdivide the particles with the harrow, and those great meliorators, sun, air, and rain, will, without cost, come to your aid to prepare the soil for the purposes of successful culture. Superintend the ploughing of your fields, and *see* that every blade of grass and weed is well and deeply covered up, so that, when done, you may safely offer a premium for any which may be found on the surface.

Rye.—As we fear there is much Rye still to be sowed, we would advise that it should be got in without further delay. Unless the ground be in good heart, we would recommend that a few bushels of ashes and lime be strewed over each acre, say 5 of each after the seed is ploughed in and the ground harrowed, just before it shall be rolled. Then finish your work, by making water furrows, so as to pre-

serve the plants dry throughout winter and early spring.

To give an early start to the germination of the seed, it would be well to soak it for 12 hours in a solution of salt and water before being sowed—and dry it either in ashes, lime, or plaster.

From 5 to 6 pecks of seed per acre should be sown—a bushel is the usual quantity—but this we believe to be much too little to stock the ground as thick as it should be with Rye plants. Though a smaller grain than wheat, it should be recollected that it does not tiller as much, and, therefore, should be so thickly sown as to enable it to occupy the whole of the ground and keep off intruding weeds.

Pulling Fodder and cutting Tops.—Seize the right time to perform these labors, and be sure not to let either remain undone until all its substance is dried out of it by the sun. In stacking or housing your fodder, put it away layer and layer about with a little straw. The fodder if pulled in season, and well cured, will impart its own delightful fragrance to the straw, and render it infinitely more acceptable to the beasts to which you may feed it.

Draining and Ditching.—If you have any grounds that need these operations, go to work at once and have them laid dry; good crops will not grow in a soil which is one half the time a mud puddle, and the other half baked clay. Moisture in its place and season, is a very good thing, but scalding water, resting upon impermeable clays are but indifferent promoters of vegetation. Many wet clay fields, which now defy the strength of the strongest teams, would, if properly drained, be found to be reduced to a state of friability which would render them pleasant to work.

Destruction of Garlic.—If you have a field infested with Garlic, plough it up now. Run a shallow furrow, just deep enough to turn up the roots to be exposed to the killing heat of the sun. This will also place the seed, which may have been matured, in a position to spring up. When the plants may be three or four inches high, give another ploughing, so as to expose their roots to the frosts, which will then be coming on apace, and you will go far towards subduing this dire enemy of the wheat field.

Weeds.—Next turn your attention to these pests, and go to work with a determination to extirpate every one that encumbers your fields, fence sides and fence corners, and while you are carrying your praiseworthy resolution into effect, recollect, that by casting them into your cow-yard or hog-styes, and converting them into manure, you may make them contribute towards the growth of your crop next year, and thus repay yourself for their having robbed your soil of its riches this. Take our word for it, that this is as profitable a labor as you can employ a part of your force in.

Late Potatoes.—It would be the part of prudence, as a preventive of the rot, to sow a mixture of equal parts of lime and salt, over the vines of your late potatoes. Do it in the morning when the dew is on them. Should your potatoes not be affected with the rot, your time will not be lost; neither will the cost of the lime and salt, as both will tell in your next year's crop, and in order that the benefit may be general, you had best broadcast the ground *between*, as well as *upon*, the tops of the rows.

Sowing of Wheat.—We took time by the forelock, in our last number, to advise our wheat-growing friends to sow their wheat earlier than has been customary for many years past; and we seized the occasion to express the feeling of pleasure with which we had been impressed, at learning that *late* sowing had, within the last few years, fewer advocates than heretofore. The dread of ravages from fall attacks of the *Hessian fly* to early sown wheat, originated the custom of *late* sowing; but after very mature consideration, we have long since come to the conclusion—and often expressed the opinion—that there is less danger to be apprehended from the autumnal attacks of that destructive insect, than there are from the effects of winter and early spring killing, by the alternate thawing and freezing of the ground, where the wheat plants have not had time, owing to the lateness of the seed being sown, to extend their roots and embed themselves in the soil. To us it has ever appeared consonant with reason, that he who expects the plant to sustain itself in vitality, to maintain its position in the earth—should at least give it time before the frost sets in, to elaborate its roots, and thereby secure to itself sufficient vigor, strength and expansion, to sustain its root-hold, and defy the uprooting influence of sudden contractions and expansions of the earth during the periods enumerated.

Having spoken of the *time* at which sowing of this grain should take place, we will remark, that in the *preparation of the ground* great care should be taken. That wherever the ground to be sown is a clover-ley, or grass sward, that the utmost pains should be observed in ploughing, in order that there be no baulks left. The ploughing should also be deeply performed, so that the bed and pasture of the plants may be increased in depth, to afford the greater facility to the *descent* of their roots, and consequent security against frost. Nor should less pains be taken in harrowing, it being indispensably necessary that the soil should be brought into the most perfect state of pulverization and subdivision of which it is susceptible. The finer and more minute the tilth, the less will be the impediment offered to the rootlets, whether their means of sustenance, descent, or horizontal spread, be considered. In this reduction of the soil to fineness of tilth, a heavy roller should be brought to the aid of the harrow—for there can be no greater truth adduced than this, that much of the chances of success depend upon the fact of the perfect nature of the preparation of the soil before a crop shall have been committed to its nurture.

With respect to the *management of seed* preparatory to its being sown, we would remark—that as the

smut is a disease perfectly within the control of *preventive* means, no wheat-grower should sow his seed without first resorting to those means, and the inducement to do so is the greater, because they are not expensive, as the following recipe will prove. Let the wheat to be sown, be first *washed* in clean water, until the water ceases to be colored, then make a brine of salt, of strength to float an egg, sufficient to cover the quantity of wheat intended to be sown each day. After the wheat is put in this brine, stir it about, skim off all the light, defective grains and seed which float on the surface, and give these to the stock. Let the seed remain in the soak for 12 hours; when about to sow it, strain off the brine and dry the seed in slaked lime, or ashes. *No more seed should be taken out of the brine each day than is intended to be sown.*

This process will not only be preventive of smut, but will quicken the germination of the seed, and give an impetus to the growth of plants—a thing of the very first moment, both as regards the depredations of the fly, and the subsequent effects of frost.

In the *selection of seed*, those varieties or kinds of wheat should be preferred, which combine constitutional hardiness, vigor of growth, and early maturity, and which, from experience, are known to possess, in the highest degree, the property of *resisting the attacks of the fly*. The earlier the period at which wheat matures in summer, the less danger is there to be apprehended from the effects of *rust*; for, without assuming it to be a fact, we incline to the opinion, that the peculiar and murky condition of the atmosphere consequent upon rains and hot suns, which is apt to prevail in midsummer, has much influence in the production of that disease, and thus believing, we feel ourselves called upon to recommend the sowing of the early maturing and constitutionally vigorous varieties.

After the seed shall have been sown, covered, and the ground harrowed and rolled, water furrows must be carefully run, at proper distances, so as to carry off all excess of water, so that the young plants of the wheat may be permitted to repose in dry beds throughout winter and early spring. If the ploughing shall have been deep and thorough, the tilth fine, and the furrows kept well cleared out, so as to vent the superabundant water, we feel satisfied that there would be less suffering from what is called winter killing, or spewing up.

As to the *quantity of seed per acre*, we will observe, that less than 2 bushels per acre should never be sown, as it should be the object of the wheat-grower, to give to the earth a sufficiency of seed to *cover* it with wheat plants, to the exclusion of weeds.

It sometimes happens that worms attack the wheat plant in the early stage of its growth. This, we believe, may be prevented, by sowing from 2 to 4 bushels of salt per acre, over the wheat field after the plants shall have come up. Nor will this be the only benefit to accrue from the application of the salt for it will act as an absorbent, and thus provide pabulum from the atmosphere for the nurture of the wheat-plant—its well known affinity for that element, as is evinced by its efflorescence when exposed to it, being proof of the fact.

As *Potash, Lime, and Phosphoric Acid*, are always detected in the grain and straw of wheat, when submitted to analysis, so should it be the duty of every grower to see that these salts are present in his ground. Stone lime and ashes will supply the two first—while ground bones, oyster shell lime, or shell marl, will provide the latter. Therefore, if the land on which wheat is to be grown, should be deficient in these mineral manures, that deficiency should be supplied. For all present purposes, 10 bushels of stone lime, 5 of ashes, 5 of either oyster shell lime, or ground bones, will answer. If used for the purposes named, they should be mixed together in composts, evenly spread over the land, and be thoroughly incorporated with the soil by harrowing them in, so as to bring their action the more immediately into operation.—The value of this compost would be greatly increased, by the addition of a few bushels of salt, per acre. When, however, salt shall form a constituent part of the compost, the mixture should be permitted to remain in pile for some weeks before being used, in order that there be time allowed for the necessary chemical union between the lime and salt to take place.

We have recommended *salt-brine* as a soak, preventive of smut; there are various others; but as we go in for *cheapness*, and we do *know* this to be efficacious, we prefer it to the more complicate and expensive kinds.

Salting of Meadows.—If you have not already done so, you may still sow timothy seed. Unless the ground intended for your meadow be very rich, manure it with a liberal hand, plough it evenly and deeply, so as to turn the manure well in, then harrow, spread on fifty bushels of ashes and fifty bushels of lime per acre. harrow again, then sow 1½ peck of good timothy seed per acre, harrow in with a *light seed* harrow, and finish by rolling. Recollect that the seed should not be covered more than an inch.

Salting and care of Stock.—Give your stock of all kinds salt twice a week. It would occasionally be well to mix slaked lime with the salt for your horses and cattle; besides correcting any disorganization of the digestive organs, it will contribute to strengthen their appetites if not assist in supplying material for bones.

Should your horses be hide-bound, give them half a pint of Linseed-meal in their messes, twice a week for a few weeks. Should they be laboring under difficulty in urinating, make a strong decoction of yarrow tea, in which dissolve a piece of salt-petre the size of a nutmeg, and give them a pint a day, three or four days in succession. Than yarrow tea thus prepared, we know of nothing better to remove

obstructions in the urinary passages, or relieve disturbances of the kidneys.

Working of Turnips.—See that your turnip patch is cleaned of weeds and thinned out. Where the plants are thickly set, and not large, the most economical way of cleaning, is to pass the harrow through them.

Hog Pens.—Haul from your woods as much mould as will cover your hog-pens six inches deep, level it and let it settle down against the time you put your hogs in to fatten, and, while they are undergoing that process, they will convert the whole into first rate manure for you, as well as any weeds, vegetable leaves, and other offal, which you may choose to have thrown into them. As a means of improving the quality of your manure, *salt* your hogs twice a week,—and to keep their stomachs in good trim, occasionally throw into their troughs a few shovels full of charcoal and ashes, and a few billets of rotten wood. When first put into the pen, it is always best to give to each full grown hog a table spoonful of flour of sulphur. If given in the morning mixed in a little Indian meal dough, they will eat it without difficulty. Place a post in the middle of the pen, at which they may rub whenever they may need to do so.

Fences.—As your pastures will be getting thin, and instinct will teach your cattle to seek elsewhere to satisfy their hunger, look to your corn-field fences. Examine every pannel *yourself*, and have the whole made secure, so that no beast may be tempted by weak points to break in and depredate upon the fruits of your labor.

Sheep.—Have you shedding in which to accommodate your sheep next winter? If not, have some put up. Humanity and intrest both combine to point out the propriety of such a step. Your sheep will be more comfortable, while you may subsist them upon two thirds the quantity of provender they consume without shelter when wintered. They will maintain better health, and yield a better fleece and more of it. The sheep that is kept out through the winter, has, of necessity, to yield up fully one-third of what it eats to keep up a living heat for the body, whereas, if he were housed and warmly lodged that would go to the increase of fat, muscle, flesh, and wool.

We have now called your attention to those things which have appeared to us as being necessary to be attended to this month; but as we have, doubtless, left many things unnoted, we shall have to depend upon your supplying our deficiencies; and thus craving your indulgence for all omissions, we will tender you with our sincerest wishes, that you and yours may be blessed with every enjoyment—every comfort—that can impart rational pleasure—vouchsafe happiness, or fill the heart with those pleasurable emotions which strew the pathways of life with their most cherished charms, and awaken the aspirations of gratitude towards that Being, from whose paternal beneficence all that is worthy of appreciation springs.

GRAIN AND OTHER CROPS OF MARYLAND.—From the best information we can gain, we are induced to believe that the Wheat crop of Maryland is considerably less than an average one, and that the Tobacco crop will not reach two-thirds of a crop. The Oat crop is unusually large,—Rye better than usual—the Hay crop abundant beyond comparison—and the Corn crop unusually good in most parts of the State, whilst in some sections of the Eastern Shore, where they have not enjoyed the rains, nor had during the past month, it will be rather short—but as to potatoes, the general impression seems to be, that not half a crop will be raised, owing to the prevalence of the disease which has again prevailed in many sections of this state, as well as in others.

GRAIN CROPS OF EUROPE.—From all the intelligence we can gain, we are induced to believe, that the grain crops of Europe will be good, generally. Should the anticipations with regard to the destruction of the potato crop in Ireland be realized, American *Corn* and *Corn Meal* may find a ready and profitable market in that quarter, though we still entertain the opinion we have before advanced, that American wheat growers will not profit much by the reduction of the British tariff upon breadstuffs.

NITRATE OF SODA—SALTPETRE—GROUND BONES—POUDRETTE.

Baltimore county, Md. July 22d. 1845.

The Editor of the American Farmer, will oblige some of his subscribers by stating whether the fertilizers, such as Nitrate of Soda, Saltpetre, Bones, (ground,) Poudrette, &c. are to be had in Baltimore, and at what prices by the half or whole ton—an article on these and other new manures, stating the quantities per acre, and the crops with which it is most desirable to use them would undoubtedly be interesting.

A monthly quotation of the prices of the above, as also guano, horn-shavings, ashes, &c. would perhaps add to the valuable character of the American Farmer, and oblige, A SUBSCRIBER.

Having in our last number answered the inquiries of our correspondent, with regard to the *prices* of the above articles, we shall now confine ourselves to an endeavor to point out their respective properties as manures, and this we shall do by drawing upon European authorities, to show, from experiments there made, the degree of value which should attach to them as improvers of the soil.

Nitrate of Soda—Saltpetre.—We shall couple these salts, as the experiments tried seem to have been to test their comparative values. *Nitrate of Soda* is chiefly obtained in *Peru*, where it is found in a thick stratum. It is composed of 62.1 parts *nitric acid* and 37.9 parts *Soda*.

When pure the per centage of Saltpetre is 52 9 Nitric acid, 47.1 of Potash, so that the difference between the constituent elements of the two salts, is, essentially, owing to the base of either, the one being *potash*, while the other is *soda*, with this exception it will be seen that, while the one contains 10 per cent more acid, the other has that much more alkali, and consequently less acid in about the same proportion.

EXPERIMENTS ON WHEAT—Made on clay land, thorough drained and subsoiled.

Lot No. 1	20 Perches	manured with 28 lbs. Nitrate of Soda	Produce 7 bushels 7½ pounds,	58 bushels, 26 lbs.	Weight of Straw per Acre. 518 Stones.
Lot No. 2	20 Perches	manured with 28 lbs. Saltptr.	6 bushels 38 pounds,	52 bushels, 24 lbs.	764 Stones.
Lot No. 3	20 Perches	Unmanured	5½ bu. ½ lb.	44 bushels, 4 lbs.	316 Stones.

1. That by the application at the rate of 112 lbs. of the Nitrate of Soda per acre, the product of wheat was increased over that grown on the *unmanured* lot, 14 bushels and 22 lbs., whilst the straw was increased 202 stone.

2. That the lot manured with the Nitrate of Soda produced 6 bushels 2 lbs. more grain than that manured with Saltpetre, while the latter produced 246 stone more straw—and

3. That the lot manured with *Saltpetre* produced 8 bushels 20 lbs. more grain and 448 stone more straw than did the *unmanured* lot.

These results are instructive; for they demonstrate beyond all cavil, that both these mineral salts are valuable fertilizers, and that, where grain is concerned, the *Nitrate of Soda* is by far the most valuable, but that when we come to consider straw as the desired product, that *Saltpetre* is upwards of 50 per cent. the best of the two. As the three lots experimented upon were adjoining each other, it is to be presumed, as nothing to the contrary is stated, that the quality of the soil of each was alike.

Judging from the above results one would be led to the conclusion, that, so far as the product of grass may be an object, saltpetre should be preferred, for we take it for granted, that if it possesses the property, as proved by the above experiments, of increasing the quantity of *straw* over a hundred per cent., that its effect would be equally efficacious when applied to any of the artificial grasses. Its superiority in this respect may be accounted for, in the fact, of its base consisting of *potash*, a mineral salt, as all experience has shown, of infinite value in forming the *silicate of potash*, by combining with and dissolving the silica, or sand, of the soil, and thus contributing that substance to the stalk of the grass which enables it to stand erect.

There are instances upon record of equally good effects being produced by the application of each of the named salts to oats—their effect upon root crops, as potatoes, turnips, carrots, beets, &c., do not appear to have been beneficial.

As to the *quantities* to be applied per acre, applications of from 1 cwt., 1¼ cwt., 1½ cwt., and 2 cwt., appear to have been attended with nearly equal advantages, so that, as economy should always be looked to by the cultivator, we would, of course, apply the smallest quantity, because it would involve the least expense.

Ground Bones.—All experience teach us, that ground Bones, whether burnt or unburnt, is a most valuable manure for all varieties of soil, not absolutely wet, and for almost every kind of crop. This remark will hold good as well of their use in Europe as in this country. In the former the application of bone manure has been practiced with good effects many years, while in our own country, though for a shorter period, with like good effects.

By analysis the bones of the *Ox* give in	100. parts
Cartilage soluble in water	33.30
Subphosphate, and a little fluate of lime	57.35
Carbonate of Lime	3.85
Phosphate of Magnesia	2.05
Soda and a little muriate of Soda	3 45
	100.00

Having given the constituents of bones, we will make the passing remark, that it will be perceived that one-third part of them being soluble in water, is, therefore, susceptible of being converted promptly into the food of plants.—As to the mineral portions, comprising the other two-thirds, tho' not so immediately available, they are measurably so without any previous preparation, as heat and moisture may prevail to bring on decomposition, and give out the respective mineral elements, to be taken up by the power of the voltaic action of the roots of the plants. It is perhaps fortunate that the decomposition of these latter elements is slower, as from that circumstance bones are indebted for the property they possess of being comparatively a lasting manure—capable of extending their usefulness far beyond any ordinary rotations of crops, and consequently enhancing their intrinsic value.

The quantities of bone-manure used in England per acre, considering the repetition of the application to every turnip crop, we consider too great, in the maximum—a ton per acre. Half that quantity would answer a better purpose, because it would give equal product, and cost but half the amount of money. *Twenty bushels* per acre, would, we should think, be as large a quantity as should ever be put on at a single application, and we believe that the bones should always be mixed with some other substance before being applied, as rich mould in the proportion of 5 bushels for 1 of the bones; 10 lbs. of the flour of sulphur for every 2 bushels of bones; 2 bushels of sheep or well rotted dung of any other nutricious animal manure, to 1 of bones. Upon the mode of application *Liebig* observes: "But the form in which they are restored to a soil does not appear to be a matter of indifference. For the more finely the bones are reduced to powder, and the more intimately they are mixed with a soil, the more easily are they assimilated. The most easy and practical mode of effecting their division, is to pour over the bones, in a state of fine powder, half of their weight of sul-

phuric acid, diluted with three or four parts of water, and after they have been digested for some time, to add one hundred parts of water, and sprinkle this mixture over the field before the plough. In a few seconds, the free acids unite with the bases contained in the earth, and a neutral salt is formed in a very fine state of division."

Besides the application of ground bones to annual crops, it is the custom in England to apply them to meadows. The method of so doing is this. The meadow is first well harrowed, then the bones are sowed at the rate of a ton per acre, and crushed into the earth by means of a heavy roller. By this process, hide-bound and almost run-out meadows have been restored to luxuriant productive ones, without the trouble of being reset.

Poudrette.—This manure is we believe composed of human ordure and urine, combined with some earthy substance, and a disinfecting agent, made into an inodorous powder susceptible of being sown by hand. Some forty years since, a manufactory was established in France, near Paris, by a M. Bridet. His compound gained great reputation and came into general use. It was supposed that a barrel of it was sufficient to manure an acre. But without conceding to it so high a rank as a manure, we have no question, if well prepared, and no more earthy matter used than may be necessary to reduce the ordure and urine to a state of powder, and the disinfecting agent be either pulverized charcoal or plaster, we believe that it must possess very active and powerful properties as a nutritive manure; that, if properly incorporated with the soil, it would, to a certain extent, impart to it the property of attraction, absorption and retention, and thus convey to it the capacity of appropriating to the growing plants much of the volatile rich gases which float in the atmosphere.

A *Poudrette* company was established some years since in the vicinity of the city of New York, whose preparation has got into public favor. The majority of those who have used it speak highly of its virtues, while there are others who could not recognize any superior claims it had to excellence. We used a barrel of it by way of experiment on a patch of turnips, and thought it a good manure, quick in its effects in giving a start to the plant, as well as in maintaining a vigorous growth to the roots; but as we did not give it a comparative test with other manures, we are unable, from our own personal experience, to speak of its relative value. We have yearly supplied tobacco planters with the Poudrette, and from their repeating their orders every spring, we conclude it has been found beneficial.

Baltimore, August 17, 1846.

Mr. Editor—Sir,—The article you propose for the Farmer on the subject of new fertilizers, cannot but be interesting, particularly at this period when so much attention has of late been drawn to this subject. An additional value will be given, by stating the kind of crop to which each manure is best suited, and above all whether their beneficial effects extend to the second and third season. I have proved to my own satisfaction over and over, the good effects of guano, when applied to mowing lands. This season its action was very decided; it was applied with plaster, one bushel of the latter, mixed with three bushels (or 150 lbs.) guano to each acre; on a portion of ground where the grass has already been mown twice this season, the guano shows its effect upon the third crop. But there seems to be a doubt if guano is suitable for grain crops. Bones seem to possess a very lasting property when applied as a manure to land, though as yet I believe they are expensive in Baltimore.

You have frequently recommended buckwheat ploughed in the blossom stage, as a renovator of exhausted lands. Do you not consider Indian corn better for this purpose? as it furnishes a large mass of vegetable matter to be turned under, though the expense for seed is much greater, and the corn is ploughed under with more difficulty than the buckwheat. With great respect,

A SUBSCRIBER.

P. S.—I ought to have stated that I first used the guano on grass land in 1843, but being absent during the years 1844 and '45, I am therefore unable to say whether its beneficial action extended beyond the first season. Also, that plaster applied on the blue grass and clover alongside the guano, exhibits *no perceptible action* in the growth or colour of the grass.

Since the above article was in type we received the subjoined note, and we shall endeavor to answer the subjects of inquiry in the order in which they are placed by our correspondent. To begin,

1st.—*Nitrate of Soda* and *Saltpetre.* In these substances we see nothing in their constituent elements to prevent their being advantageously applied to any crop. We should think that neither would extend its benefits beyond a single season. While upon this branch of the subject we will observe, that a quantity of the nitrate of soda has arrived in this city, and is for sale by Messrs. G. & N. Popplein, Baltimore street, at 4 cts. per lb.

2d.—*Guano.* In this fertilizer there are nearly all the elements of vegetable life, and we think it altogether a *mistake* to suppose that it is not "suitable for grain crops." In Peru it is the only manure applied on crops of wheat within available distances of the places of supply. In England, and also in this country it has been applied to wheat crops with decided good effects. We have observed them ourself, and could mark the difference in the appearance of the guanoed and unguanoed wheat as far as the eye could discern the plants. Guano to be beneficial in our versatile climate, should we apprehend, be mixed with *plaster*, to *fix* the ammonia, and be harrowed in. Thus treated, we have no question that 200 pounds of Guano, and 1 bushel of Plaster, would last throughout a four year's rotation. The price of this article will be found in our advertising page.

3.—*Ground Bones* is 40 cents per bushel in Baltimore. Of their virtue as a manure there can be no question: they are applicable to almost every crop:

for corn, wheat, buckwheat, rye, oats, turnips, and the artificial grasses, they are alike valuable.

4th.—We have no doubt that a luxuriant crop of broadcast corn would be "*better*" than a crop of buckwheat; but before you can get a luxuriant crop of corn to grow, the soil must be rich, or made so, whereas, Buckwheat will grow on comparatively poor—very poor land, and with the aid of a bushel of plaster to the acre produces luxuriantly. It is in its nature to extract large supplies of nutritive manures from the atmosphere. The construction of its leaves favor this peculiar habit, of largely drawing upon external sources for its food. Our correspondent will perceive from the remarks we have made, that *ground* which will produce a crop of broadcast corn worthy of being turned under, does not stand in need of *green* crop manuring. We have never spoken of the turning in of the Buckwheat, but in connection with *exhausted* soils, with a view to their melioration, and we have commended the practice upon the supposition, that other nutritive manures were possibly without the reach of the proprietors of such lands—and because we believe that very poor soils are susceptible of being sensibly improved by such treatment. With 10 bushels of lime and 1 of Plaster, per acre, and 2 crops of buckwheat turned under, we would undertake to make an old sedge field bear a good crop of wheat, a *good* growth of clover after it; that accomplished, we need scarcely add, that the soil, after being two years in *clover*, would be in a condition to grow a crop of corn, and thenceforth, with proper attention to the use of fertilizers, to take its place among the other fields of the farm.

THE SUNFLOWER, AND PALMA CHRISTA.—The cultivation of these two vegetables might, to a *limited extent*, be engaged in. The first, as a substitute for sweet or olive oil, for table use, and for burning in lamps—and the second for the manufacture of castor oil. They are each easy of culture, requiring the same treatment as a crop of corn—a good deep well pulverized soil, naturally rich, or made so by liberal manuring, and to be kept clean. Thus treated, good profits might be looked for with something like certainty. The mill for expressing the oil from each would not cost a great deal, and with care would last for many years.

The cultivation of either, we, however, only recommend as a means of diversifying products, and, therefore, would advise caution and moderation to all who may engage in their culture, and that they should always bear in mind—that excess of production inevitably leads to depreciated value.

SUNFLOWER SEED.

(*Helianthus annuus et perennis.*)

From experiments made by the Moravian Brethren at Bethlehem, who were the first to introduce its manufacture, it appears that a bushel of sunflower seed will yield, on expression, near a gallon of mild oil. The process is the same as that for making linseed oil. The oil-cake is believed to be quite as valuable for stock-feeding. The per centage of oil is not so great as that from many other seeds, being stated by Ure at fifteen per cent. But the number of bushels of seed per acre is great, being variously stated at from 50 to 150—the lowest estimate being, perhaps, the nearest the truth. Even at that rate, and as food for stock, this must be one of the most valuable of crops. A letter, now before us, from our old friend, Thomas S. Hinde, of Mount Carmel, Illinois—one of the few pioneers who have kept a record of events during the early settling of the West; and which, he informs us, he is about giving to the world—states that "Mr. John Matthews, of Urbana, Ohio, informed me that he was offered 4,000 bushels of sunflower seed, to be delivered him, from the banks of the Scioto, forty or fifty miles distant, at twenty-five cents per bushel." Mr. H. makes the deduction that as it can be produced so cheap, and as stock of all kinds are fond of it and thrive on it, it will prove a profitable crop as food for stock; the more as the leaves make capital fodder. Mr. H. promises us a supply of seed, of a superior variety, to test its growth thus far south.

Since writing the above, we found an article in the *Western Farmer and Gardener* (Indianapolis, Ia.) from the pen of its editor, from which we make the following extracts:

"SUNFLOWER SEED.—To some extent this is likely to become a profitable crop. Mr. Clark Kitchener in this (Marion) county, tried about an acre of it this year. A part of it did not do well; but off from one-half acre he raised *thirty five bushels*; or seventy bushels to the acre. Medium lands will yield, on an average, fifty bushels; while first rate lands will yield from seventy to one hundred bushels.

Mode of Cultivation.—The ground is prepared in all respects as for a corn crop, and the seed sown in drills four feet apart—one plant to every eighteen inches in the drill. It is to be plowed and tended, in all respects, like a crop of corn.

Harvesting.—As the heads ripen, they are gathered, laid on a barn floor and thrashed with a flail. The seed shells very easily

Use.—The seed may be employed in fattening hogs, feeding poultry, etc., and for this last purpose it is better than grain. But the seed is more valuable at the *oil mill* than elswhere. It will yield a gallon to the bushel without trouble; and by careful working more than this. Hemp yields one and a fourth gallons to the bushel, and flax seed one and a half by ordinary pressure; but two gallons under the hydraulic press.

The oil has, as yet, no established market price. It will range from seventy cents to a dollar, according as its value shall be established as an article for lamps and for painters' use. But at seventy cents a gallon for oil, the seed would command fifty-five cents a bushel, which is a much higher price than can be had for corn.

It is stated, but upon how sufficient proof I know not, that sunflower oil is excellent for burning in lamps. It has also been tried by our painters to some extent; and for *inside* work, it is said to be as good as linseed oil. Mr. Hannaman, of this place, who has kindly put me in posession of these facts, says, that the oil resembles an *animal*, rather than a vegetable oil; that it has not the *varnish* properties of the linseed oil. We suppose by varnish is meant, the albumen and mucilage which are found in vegetable oils. * * * * The existence of impurities in oil, such as mucilage, albumen, wax, gum, etc., which increase its value to the painter, diminish its value for the *lamp*, since these substances crust or cloy the wick, and prevent a clear flame. All oils may, therefore, the less excellent they are for painting, be regarded as the more valuable for burning. *Rape seed* is extensively raised in Europe,

chiefly in Flanders, for its oil, and is much used for burning. Ten quarts may be extracted from a bushel of seed. It is begining to be raised in Ohio for this purpose."—*N. O. Times.* T. A.

ON GRAZING CATTLE IN KENTUCKY.

We have been favored by a gentleman of this city with the following extract from a letter from an eminent breeder in Kentucky, on a subject which should claim the particular attention of the Farming community, inasmuch as the favor which our provisions now meet with in the English market, when of the right quality and properly packed, renders a due attention to these particulars requisite on the part of the Grazier and Packer, to secure a permanent and valuable market for our beef and pork.

We learn that there is not as plentiful a supply of Cattle in Kentucky at this season of the year as usual.

WINCHESTER, KY., July 20, 1846.

"I believe I promised to give you my views on the subject of Grazing Cattle. As it is beyond my ordinary vocation to attempt any thing of the kind, I hope you will not expect in any degree to be edified. The first and most insurmountable difficulty under which the farmers of Kentucky labor is, they are unwilling to lose their timber in sufficient quantity to enable thier land to graze to an advantage; this however, is becoming less as the country grows older, and the consumption of wood increases. I have long since been satisfied that an acre of grass without shade, is worth more than two heavily shaded—indeed I have observed in many cases a heavy growth of grass, which was of no benefit to the farmer (for fattening) for want of the nutriment received by the rays of the sun. There is a great advantage to be gained by the grazier in having a variety of grasses at the same time, as cattle are particularly fond of a change of food, being much like sheep in this respect. I have found that there are many kinds of weeds which are beneficial while in a tender state, (but I would not advise the propagation of them,) it being a general law in all the animal creation, that the more nutritious food consumed the greater will be the improvement. The farmer should be particularly careful to select the most nutritious kinds of grass.

The Blue Grass (so called here, but known in some countries as Spear grass,) has decidedly the preference with us, as it is not only very nutritious, but will stand the frost better than *any* other; the red clover is very fine from April until July, and produces a heavy growth—after this time it is of but little value. Timothy is also good, and lasts well during summer and autumn. It has been the practice of some of the old farmers to keep their Cattle in a single herd when they would have a number of enclosures for them, and would keep them on one until they would graze it close and then change them alternately. This practice I would object to, for two reasons—first, because there would be a portion of the time previous to changing them, in which they would perhaps make but little improvement for want of grass, or on account of it being soiled under foot, whereas by distributing them in small lots they would at all times, have a fresh and abundant supply. Another reason is, in many cases they will be so discontented with their new situations, that they will not thrive for some time. I have observed some cases in which an animal would even fall off when removed from his accustomed pasture and old associates; owing to discontentment entirely.

There are a few facts relative to the quality and growth of Grass, which I intended to have mentioned while on that subject.

I have always observed that cattle would fatten much faster during a warm dry summer than when wet and cloudy, the grass being more solid and nourishing. It is well known that our Blue Grass will not only smother out the other kinds of grass, but will also overcome most kinds of weeds; but it is necessary for the farmer in order to have a good crop of it, to have the sod broken frequently, I would say once in three years—this may be done to a good advantage by treading it with stock during the winter whilst the ground is thawing, but great care should be taken to have them off before the last freeze of winter, which (in this part of the country,) happens about the first of March. I have observed, in many cases where land had been in blue grass for a number of years in succession, that by this process double the quantity of grass has been produced, that was the preceding year.

It is very common with the farmer, to mix the different kinds of seed, such as blue grass, timothy and clover, sometimes an equal quantity of each; in such cases the blue grass will smother out the others in about three years.

There is very much to be gained by the farmer in making a good selection of Cattle. In many cases I have had cattle at the age of three years, that would be as fat as others at five, with the same treatment, owing to the difference in the shape and breed. There are a few general peculiarities which should be observed in the selection of them; some of which are, good depth of body, large chest, round in the ribs, broad across the hips and loins, light in the thigh, neck and legs. As to the quantity of grass which should be allowed to a bullock, during the year, I would say about three acres, although a smaller quantity is usually allowed by most farmers. I find that a bullock will make more improvement during the summer, to have an abundant supply, and then in the commencement of winter, whatever is left is very beneficial to winter younger stock for the next year. I generally purchase my stock in autumn and the commencement of winter, winter them on grass until near the first of March, then commence feeding, and continue until the middle of April, then turn them on the grass, and in October, they are ready for the barrels. If the winter is unusually severe, I commence feeding sooner.

By this process, I can have them ready for the table of John Bull.

I will not tax your patience longer with my unconnected ideas and remarks on this subject.

Very respectfully,
Your Friend,
JACOB VANMETER.

A FINE APPLE.—We have received from Mr. Jackson, of Howard District, one of the finest apples we have ever seen or tasted—It is a "Bell-flower," weighing 14 ounces, and measuring 13 inches round—An orchard of a few acres of this kind of fruit near the city, would yield a revenue to the proprietor sufficient to support a Governor in a style corresponding with the dignity of the station.

ELECTRICITY APPLIED TO AGRICULTURE.

To the Editor of the American Farmer.

You encourage me to communicate the results of my experience and reflection on Agriculture and kindred topics of general interest: I therefore offer your readers a few thoughts on the subject of Electricity, as connected with vegetable physiology; and if I shall succeed in making myself understood, I hope to throw some light on the vexed question—whether Electricity can or cannot be used profitably in promoting vegetation. I beg to state in advance that my views being entirely different from those usually received, will labor under this disadvantage, that my premises must be granted, inasmuch as I have not the time or space to enter on their merits.

Now I contend that Electricity is equally potent with Caloric in imparting vigor and growth to every thing possessing life, and that they may be employed artificially on a tolerably large scale. In hot-houses and even in extensive orchards we are familiar with the modes of raising the temperature, but we have hitherto failed in our experiments with Electricity, a less manageable agent in Physics, and which I believe to be the antagonist of Caloric in maintaining the equilibrium of the Universe, as well as originating all movements whether animate or inanimate. Hence its importance and necessary connection with our agricultural pursuits. To this all-pervading force I attribute the fixation of carbon and formation of tissues, as results of chemico-vital changes in the growing vegetable; that is to say, the decomposition or transformation of certain materials entering its system liberates Electricity, whereby other materials are prepared and assimilated. What law of nature is better established than that the death of one organized being contributes to the life of another? so the decay or (to use a scientific term) eremacausis of an organic molecule transfers the imponderable element to another. Life, when in full activity is a continuous exertion of forces—a loss here is a gain there. If one living atom comes on the stage, another goes out; all is change, and rotation in office a standing rule. In my estimation a perfect analogy marks the operation of vital energies in both the animal and vegetable kingdoms—an analogy, which if established would at once demolish the broad distinctions drawn by Physiologists, without reference to the approximation of the races said to exist in what are called zoophytes. Any difference is in degree, as far as the movements of vegetable life are concerned—the functions, of course, vary in quality as well as quantity. If then the aliment of plants undergoes the chemical metamorphoses to which allusion has been made, the case is a clear one, that the elements of nutrition are *first* to be considered, and this after all is the most available source of Electricity. Strange it is that we have not hitherto assigned any dignified office in the organic department for this redoubtable giant in Physics—stranger still that such a ubiquitous agent should so long have escaped the notice of mankind. Farmers, give wholesome provender and plenty of it to your live stock; you will generate a supply of Electricity for their welfare and your own: it is an experiment which will not dissappoint you, as others may. The food first engenders warmth by being appropriated, and after doing its duty as muscle or other tissue, provides a stimulus for nervous action (voluntary and involuntary as schoolmen say) and ensures the deposit of fresh matter if the circulation be adequate to the claim made upon it. After making allowance for undeniable difference, but of minor importance, the principles here set forth hold good in the case of plants. This may be considered a natural process, but is it not one which Art may improve when Science leads the way? We know from experience that besides the usual requisites for health and the development of our faculties, the ingenuity of man has discovered secondary means of advancing the ordinary standard. Artificial streams of electricity may be made to pass through certain kinds of matter, organic textures among the rest. For this purpose wires have been arranged in various devices; some to transmit the fluid from above down through the plants, or from below upwards; others horizontally through the ground, so as to affect the plants ad libitum. The disposition of the roots and branches would seem to indicate the first as the most efficient plan to be pursued, as their termini are pointed and diverge in a favorable manner for catching and appropriating everything for which they have an appetite. Indeed this beautiful adaptation gave me a hint which I will presently introduce to your notice. In these experiments which are now almost exploded, the electricity was derived from an electrolyte or by atmospheric influence upon the apparatus itself (a cheaper contrivance) so that the plants to be operated on formed a part of a circuit. We may readily understand how any violence committed on the tender tissues, &c. would be attended with decided injury; such violence for example as a shock or a succession of shocks, or a continuous stream in excess. The blasted tree bears evidence of this fact when it has been struck by Heaven's artillery. But let us ask Nature whether there is not a silent unobserved ebb and flow of electricity from and towards the ground in order to keep up an equilibrium of the imponderable forces. I answer that there is every reason to believe in its constant occurrence, as well as of other currents connected with the rotation of the Earth on its axis and the inclination of the Earth in its orbit. I leave out of consideration the feasibility of turning induced electricity to account, as it can only be exerted on a large scale, such as are exhibited in the grand phenomena of thunder storms and earthquakes. I should not however omit to mention the circumstance that a wire forming the circuit complete and placed in the immediate vicinity above or below a row of growing vegetables without touching them, might perhaps produce an effect which some would call induction, and others the force of presence or contiguity. In all our attempts then we must keep in view the necessity of a steady and moderate current in either direction: but stimulation without corresponding alimentation to sustain the increased action, or without adequate vigor of constitution on the part of the subject operated on, is to be deprecated. We must also study attending circumstances, for unless they are in our favor, success is very doubtful. So that on the whole I think some economical mode may yet be discovered, and I would suggest the practicability of making our lightning conductors answer a double purpose. Perhaps I may myself give the suggestion a fair trial at some convenient opportunity by allowing my conductors, which will terminate when completed at the bottom of a deep well, to be turned at pleasure towards my garden, which may serve as a medium for the fluid's gradual discharge. This diversion of the current would not admit a vertical direction to be given to it except at great expense, by allowing the terminus of the main rod to reach the centre of the garden overhead, and thence to approach the ground by a very considerable number of small wires; but it is possible,

nay probable, that the plants immediately under and connected with the descending wires would monopolize the current to their detriment. In this event the main rod might be laid under the surface of the ground as far as the top of my garden, which is conveniently situated near the buildings, and lies on a slight declivity. The attached set of wires might then diverge and branch out through the entire length and breadth of the lot; and as the soil is generally stiff and tenaceous of moisture, though modified by the admixture of sand, and the subsoil a bad conductor, the electric fluid instead of being lost towards the centre of the earth might be tempted to exhaust itself either within the enclosure or in the fields beyond, after traversing the especial object of my care.

But I will now propose another plan for raising a tax on the elements, as they are familiarly called. The equilibrium of matter in either a vertical, horizontal, or diagonal direction can only be maintained by a shifting of matter itself (gravitation in an extended sense) or of a force equivalent to the mass put in requisition. I cannot stop here to explain my meaning, but must apologize for leaving the subject so incomplete. Suffice it to say, by the way of illustration, that as rains aid materially in carrying electricity from the clouds to the ground, so do the winds when they move from one quarter to another fulfil a similar intention; but while this comparatively slow process is going on, before the lost balance of power has been fully restored, a current of the electric fluid I confidently believe traverses the crust of the Earth in the line or lines indicated by the disturbance. This supply I could wish secured for some more profitable end. Providence has no doubt ordained these movements for the diffusive and general effects, but we are allowed by common consent to appropriate the common elements to our own individual advantage, although thereby interfering with the just rights of others. By plastering a field we rob the air of more than our fair proportion of ammonia, carbonic acid, and water, to the exclusion of a less provident and sagacious neighbor. We invite them as it were to visit us in preference to others, so by a proper arrangement of wires we are entitled I think to the lion's share of any free electricity floating or slowly travelling in our vicinity. On the other hand I believe that such a disposal of the apparatus might be made as will contribute to the mutual benefit of all parties: if the stranger happens to favor me to-day, he might accommodate my good neighbors tomorrow, provided the scope of our wires be limited to different quarters of the horizon, which would lessen the expense to each, or even I might be enabled by superior manœuvring to take the responsibility of withholding a supply from one of my neighbors for whom I might have no particular sympathy, and bestowing extraordinary privileges on another more deserving of generosity: so let them look to it. The Electric telegraph would not then have all the fun to itself, if I may be excused a vulgar saying. But to be serious, a fanlike expansion of wires in all directions within my own farm precincts, the broad end of the fan terminating at the dividing fences of my neighbors, and laid perhaps a foot or even more beneath the surface, might by some happy contrivance become available for accumulating and communicating a vivifying influence on some desirable spot. It is evident that the course is not the most advantageous one, but still whatever parts of a vegetable the fluid reaches, it affects more or less, and if advantageously, as no doubt intended by the Creator, probably more benefit would accrue from a judicious system. In this letter, I have used the term fluid for convenience, without wishing to be understood as attaching the idea of matter to what is really a force in motion, entirely dependent for its existence within our sphere, except when liberated in the form of Light, a compound of Caloric and Electricity.

This brings me to Solar rays, forming the last and only other relation, as far as I am aware, between Electricity and the growth of plants and animals. A few words will suffice:—during darkness one of the most indispensible elements of vegetative life is comparatively wanting, more important, however, to the plant than to the animal. Shade also in excess, is unfavorable to activity or energy of their functions.

We have now reached the limits of our knowledge on this most mystified of mysterious subjects, and in conclusion, let me express my most earnest hope that gratifying results may soon attend this as they have other branches of an Electro-chemical character.

ROB'T. SERRELL WOOD.

Mount Hermon, near Washington, D. C.

AGRICULTURAL SCHOOLS.

Willow Grove, near Frederick,
August 10th, 1846.

To the Editor of the American Farmer.

Allow me sir to call your attention, and that of your numerous readers, to a subject of vital importance to Agriculture as a *Science*. I read in the last number of the Farmer, the able address of Gen. Richardson—he has taken a full and comprehensive view of what I would speak of, and I commend an attentive perusal of that address to every one interested in the general prosperity of all classes of society, the farmer in particular. If we wish to see the *Science* of Agriculture brought up to, and afterwards keep pace with, the improvements of the age, as the General suggests, the first subject of general importance should be the establishment of *Agricultural Schools*. Why is it that Agricultural Science, embracing as it does an endless variety of subjects for research, study and investigation, should be made to succumb to other sciences of less usefulness or importance, the least of which, by the by, have their separate schools to advance their *distinct* interests. In what trade or profession are men to act without first having made that trade or profession the object of their profound study? The Agriculturist alone is licensed by the community at large to work his way in *blissful ignorance*. Those who have enough wit to make a practical observation as they plod along do tolerably well, but the *great mass* of farmers are suffering daily for the want of proper information to guide them in their business aright. They plough, sow, and reap, but cannot tell what produces vegetation, how the plant is nourished, or the grain matured. If they hit upon a fair crop occasionally, well and good—they are not capable of seeking out the primary cause, so as to bring about, by scientific management, the same result again. Thus we have lucky and unlucky farmers. The one class prospers, the other fails; but no one is to blame, as all in the vegetable kingdom to them is governed by *chance*. When will this state of things bring men to *think* and *act* as becomes rational creatures?—we have many Philanthropists among us; but they seem not to perceive the agricultural field open to their beneficial labours. Thousands and thousands of dollars are annually

expended for the improvement of all other arts and sciences except that of Agriculture; for this there has been no thought, no sympathy, no exertion—It has been for ages past suffered to grope its way in darkness and uncertainty—How can this be remedied? By the establishment of schools, so regulated and conducted that the young man destined to follow the *profession of Agriculture*, may have equal advantages with those selected for the fine arts and other professions flourishing under the protection given to them by the aid of schools and colleges.

The pursuit of husbandry can be made to yield more *intellectual* food, and more refinement of feeling, than any other business devised by man. How great the shame, then, that this important calling should meet with so little attention from the *intelligent* portion of mankind! Once elevate the agricultural profession to a level with those other occupations, which require the exercise of mental as well as physical action, and you can then expect to find men of genius devoting their attention to it.

I do not know what the state of public opinion may be upon the expediency of establishing these schools, but I should think there could not be two different ideas on the subject. We all know the advantages to be derived from a correct knowledge of any business we may engage in, and to bestow these advantages upon one class of citizens operating for the general good and not upon another, is most certainly great injustice, to say the least of it.

In conclusion I would urge upon the different associations for the promotion of Agriculture, the adoption of some measures calculated to draw forth the opinions of their members on this subject, and thus devise a plan to be pursued, having for its object the erection of one or more schools within the precincts of Maryland.

A YOUNG FARMER.

SUMACH.

Eufaula, Ala., Aug. 10th, 1846.

To the Editor of the American Farmer.

Dear Sir,—In the May No. of the American Farmer, I see a communication from Mr. Wm. Partridge, in which he says, he sent an article in Sept. 1843, on the cultivation of the Sumach.—Will you or your correspondent please state in what manner it is gathered and prepared for market; also, at what time; in fact every other necessary information. By complying with the above you will oblige

A SUBSCRIBER.

[In reply to the above queries of our correspondent we copy from a former volume of our work, the following information upon the subject:]

Sumach.—In reply to the inquiries of John Foley, Esq. of Louisiana, through the medium of the American Farmer, as to the proper time for gathering, and best manner of preparing Sumach for market, one of our correspondents has enabled us to furnish the following information.

The branches of the American Sumach, for dyeing and tanning, should be gathered, on or about the 20th of July, when the plant is in its milky state, and must not be exposed to rain or dew, but dried under sheds. When thoroughly dried the cuttings are to be thrashed upon the barn floor, in the same manner as grain, and the threshing sifted through a riddle, same as grain, then packed in sacks, when it is ready to be sent to market. The peculiar excellence of this valuable material consists in its being gathered in the proper season, preserved free from the sun, from all dampness, and also in the fineness of the threshing. The rays of the sun, after gathering, will extract the color, and dampness injures its dyeing and tanning qualities. The more bright, green, and fresh it appears, the more ready the sale, at the best market price.

[Of the history of the Sumach, the following are some of the particulars mentioned by Philips:]

The name of Sumach for this shrub is the same by which it is distinguished by the Arabs. The Greeks called it Ρους *rhus*, and *rhous*, from the verb *rheo*, I run, or flow, on account of the nature of the root, which spreads itself to a great distance, sending up numerous suckers. The Latins followed the Greek name of this plant; but as its seed was anciently used for seasoning meat instead of salt, it was called *Rhus Obsoniorum**, and *Rhus Coriaria*, from its use in dressing of leather, and for which purpose its branches are still in great demand among the Turks for tanning their Morocco leather. The elm-leaved sumach, *rhus coriaria*, grows naturally in India, Syria, about Aleppo and Rama, in Italy, Spain, and the south of France, and also near Algiers in Africa.

Dr. Turner says, in his Herbal of 1568, the Sumach groweth in no place of England, or Germanye, that ever I sawe, but I have sene it in Italy, a little from Bononye, in the mounte Appennine." It appears, however, to have been cultivated in this country previous to 1597, as Gerard mentions it in his Herbal of that year, and from the Catalogue of the botanic garden at Oxford, it appears to have been planted there before the year 1846.

The flowers of this species of sumach grow in loose panicules at the end of the branches, each panicule being composed of several thick spikes of flowers sitting close to the footstalks; they are of a whitish herbaceous colour, and appear in July, but seldom if ever ripen their seeds in England.

The Virginia sumach, *rhus typhinum*, is a native of North America, as its name imports. Parkinson is the oldest author who notices it in this country: he tells us, in 1629, that it was then "only kept as a rarity and ornament to a garden and orchard." This species of sumach was formerly called the Stag's horn tree, from the branches being shaped like those of the stag's-horn, and like them covered with a soft velvet-like down, which, both in colour and texture, resemble that of a young stag's horn.

The leaves are long, and elegantly pinnated with six or seven pairs of leaflets, terminated by an odd one, which hang in a most graceful manner. The shrub grows from ten to fifteen feet in height, and therefore should fill a middle station in the shrubbery, between tall evergreens and lower shrubs. The variety this plant affords in the autumn, by the gay tints of its foliage, is not surpassed in beauty by any shrub we possess, as it is sometimes quite purple, and at others of a fine red, before it changes to its last feuillemort colour. It is one of the trees that is particularly handsome to look down upon.

This shrub, as well as the elm-tree sumach, is used for tanning leather; and the roots are used in medicine in Virginia and Carolina.

The sumach sends up numerous suckers, by which means it is so easily increased, that there is little oc-

*The Tripoli merchants still find sale for the seeds of this shrub at Aleppo, where they are in common use there at meals to provoke an appetite, being ground into powder as we grind mustard seed.

casion to sow the seed when once a single plant is obtained. The Hortus Kewensis notices eleven species of this plant that will endure our winters, and nine species that require the green-house, and one the stove.

From the N. Y. Statesman.

I observe from an extract in your paper, that a Mr. Foley, of Louisiana, is desirous of having some information relative to the shrub called sumach. It is an article which has come under my notice for many years, as a dealer and as a dyer. The consumption of sumach in this country is already considerable, and is much increasing. It is used by the dyer, and for tanning of leather, and Turkey leather is all tanned with this shrub.

I am not prepared to give information on the proper time of gathering the shrub, nor have I been able to collect any instructions relative to it from works published on the subject. I should presume, however, that the proper time would be when the annual shoots arrive at their full degree of foliage. I should deem the most important fact to the cultivator to be the obtaining of the right species, for the varieties are numerous, and among them only one appears to be cultivated on the European continent for the use of the dyer and tanner. When the right kind has been obtained, and the shoots gathered and well dried, it will be necessary, in order to give to it the European value, that it should be ground to a fine powder.

There are several species of sumach in this country. The *rhus coriaria*, or elm-leaved; the *rhus glabrum*, called scarlet sumach, from the colour of its acid berries—the *rhus typhinum*, called Virginia sumach—the *rhus copallinum*, or the lentiseus leaved sumach, &c.

The *rhus cotinus*, or Venice sumach, is also an important article in dying. It is commonly called young fustic, the stem and trunk of the shrub, and the root, are bought and employed for dying an orange yellow. The leaves and stalk, when bruised, have an aromatic but pungent and acid scent.

The sumach called Sicily and Malaga, are the most sought after, and produces the greatest price. It looks much yellower when ground than the American, and works more powerfully. It is the *rhus coriaria*, which grows naturally in Syria, Palestine, Spain and Portugal, as well as in this country, yet the American is very inferior to that obtained from Spain and Sicily. It is altogether probable that the deficiency in the American sumach arises from their gathering from the wrong species, from the mode of cultivating it, from the quality of the land, or from having been grown in too northerly a climate, I shall consider that Louisiana would be admirably calculated for raising it. It is diligently cultivated in Spain and Portugal. The shoots are cut down to the roots every year, then dried, that they may be ground to powder in a mill.

As the cultivation of the sumach is become important from its great consumption, I have taken some pains to collect the following botanic description, that no mistake may be made by our patriotic cultivators.

Coriaria—elm-leaved sumach—leaves pennate; leaflets oval, bluntly serrated, downy beneath; their common stalk winged in the upper part; flowering in July, and retaining its dense, branched, ample, upright clusters, of deep red, rough, coriaceous berries, even till winter, after the leaves are fallen. The tree is of a dwarf bushy habit, with spreading ascending, round, downy branches, of a soft spongy texture. *Leaves from eight inches to a foot long, of about five pair of leaflets, with an odd one;* paler, downy, and veiny beneath. Flowers greenish, each with a large hoary germen, which becomes a globular, crimson, hair berry, the size of an elder berry. The taste of this fruit is very acid and astringent.

HOPSON.

HORSE FORK FOR UNLOADING HAY.

We yesterday witnessed, says the Trenton Daily News, the operation of the labor-saving contrivance described in the following communication. About one ton of hay was unloaded from the rack, and stowed away in a high mow, in the short space of six minutes—employing two men, a boy, and a horse. Mr. Abbott, in whose barn we witnessed the operation, informs us that it would employ twice the number of men one whole hour to perform the same work by the old method. The fork is the invention of Mr. Garrett Borwn, of Newtown, Bucks county, Penn.

MORRISVILLE, June 26th, 1846.

GENTLEMEN:—Supposing you ever ready to give publicity through your valuable paper, to any thing that will contribute to the benefit of the farming part of the community, and supposing they are not generally aware of the utility, or even the existence, of a machine (shall I call it?) that is capable of pitching or discharging a large load of hay in the short space of five minutes, I will inform you of a case. It consists of a fork, rope, and two pulleys—the latter being attached to the rafters of the barn and the rope fastened to the fork and passed through them and down to the floor, and by passing the end under a pulley wheel and attaching a steady horse, one man may discharge a load of hay in the short space of time above mentioned, simply by placing the fork in the hay and directing it to the mow by means of a rope attached to the end of the handle. Now this is no humbug, for I had the pleasure of seeing it in operation to-day. Our intelligent and enterprising neighbor, George B. Abbott, for the purpose of showing the advantage and capability of it, stationed it in my barn, and discharged three loads in short order. Now I believe if any farmer who has much hay to gather, knowing the hard labor and time it requires to discharge a load of hay, could but see one in operation, he would not do long without one, as the cost is so small. Mr. Abbott thinks he can discharge with it, with ease, thirty or thirty-five tons in the course of the afternoon, from two till six o'clock, (the usual time allotted among farmers for hauling;) and I suppose by the hand fork the ordinary quantity would not exceed seven or eight; it would depend in some measure on the height of the mow. But with the horse fork the height makes but little difference, or even the depth, for it is capable of placing the hay all over the mow, and thus dispense with the necessity of more than one person in the mow, and he only to tramp the hay down.

Yours respectfully, W. B. A.

TOBACCO DUTIES IN ENGLAND.—The importance to the revenue as well as to the morals of the people, is arousing attention in Parliament to the subject of decreasing the now enormous duties on tobacco in England.—The convictions for smuggling in England alone, in the past year, was 1478, and the ratio in Ireland and Scotland is said to be greater. The maintainance of such a vast number of prisoners, the expenses of courts for their trial, and the enormous sum, amounting to 6 or £700,000 per annum, for coast guard, are inducements advanced why the government should change its policy in regard to the duties on Tobacco.

MANAGEMENT OF SLAVES.

The undersigned having been appointed a committee by the Barbour County (Ala.) Agricultural Society, to report on the best means of governing our slaves, and of promoting their happiness, and consequently their usefulness to us; beg leave to submit the following

REPORT.

They have had the matters submitted to them under calm consideration, and are of opinion that no subject which properly belongs to a Southern Agricultural Society, should attract more attention than that embraced in the resolution referred to them; and yet, they have not been able to find, that it has ever, as yet, attracted the attention of any Southern Society. It appears to be a matter of astonishment why this is so; your committee can only account for it on the ground that we have been in the habit of merely following in the wake of Northern Societies, where the institution of slavery does not exist. We have not, it appears, recollected that our condition is quite different from that of the non-slaveholding section of the United States. With them their only property consists of lands, cattle and planting implements. Their laborers are merely hirelings, while with us our laborers are our property; and certainly, the most important portion of it, whether we regard them merely in the light of property, or as intellectual beings, for whose welfare we are in a great degree accountable. If therefore, it is a matter which pertains to the interest of Northern Agricultural Societies to attend well to the improvement of their lands, and the improvement and comfort of their stock, providing for the best means of cultivating their lands, &c., how much more important is it for us, to turn our attention to the best means of governing our slaves, and of promoting their happiness, and consequently their usefulness to us. It does appear to your committee that no argument can be required to establish the propriety of this question. Every reasonable person must at once perceive the irresistible conclusion, that there is no good reason why this subject has been so long neglected, and that it is time that we should commence to attend to it. It certainly cannot be that we are afraid to open this subject to the inspection of the world; for your committee are well persuaded that the condition of our slaves will bear a favorable contrast with that of any other laboring population in the civilized world, so far as comfort and happiness is concerned; and will not fall below them in any other point of view, than that of mere abstract notions of human rights, about which, it is true, there has been much nonsensical prating in this as well as in other countries. But whether we are willing to open this subject to the world or not, the eye of the world is on us, and the imagination has formed a picture upon this subject, even in our own country, which, when compared with the truth, is as the midnight darkness in contrast with the light of noonday. Such is the hideous deformity of the picture that we who are accustomed to the daily inspection of the original, cannot recognise the picture from the original. Your committee do not by any means contend, that all the picture of slavery is one of light, (and this they would correct.) But they do insist that, in comparison with other forms of servitude, it will bear a favorable contrast—in fact, they challenge the world to produce a laboring population more happy, better fed, or cared for, than our slaves. Let us therefore be bold and meet the fanaticism of the day, by a fearless exposure of facts; wherever we are wrong, let us correct our errors, and in what we are right, defend ourselves.

Your committee apprehend that there can be no difference of opinion in this Society as to the moral obligation of the master, to attend to the comfort and happiness of his slaves. Nor do we conceive that there will be any difference of opinion as to the obligation of the master, to promote the moral and religious character of his slaves. It is the interest as well as the duty of masters to do this. Indeed, our laws require us to attend to the comfort and happiness of our slaves; and our missionary establishment, with its ample support by us, shows that we acknowledge the obligation on us, to promote the well-being of our slaves. But even more—actual statistical returns show that religion is more prevalent among the slaves of the South than the free blacks of the Northern States, and universal opinion concurs in giving them a higher moral character. It is true that in non-slaveholding States the blacks are free in theory, but in practice their freedom often leads to misery and degradation, and not unfrequently to oppression from his white associate. Whilst the slave is in theory in the closest bands—in practice he has a friend and protector in his master, who from interest, humanity and religion, is bound to protect him and promote his happiness. Thus it will be perceived, that whilst in theory the Southern slave is the most abject and degraded, and the Northern laborer and freed man the most free and happy, yet in practice the scale may be, and in the opinion of your Committee often is, turned in favor of the slave. With the Southern master every motive which can influence a correctly constituted mind—interest, humanity and religion—leads to kindness towards our slaves; and it is only the brutal, and unreasonable portion of mankind who cannot be influenced by these means. For this class our laws are made and will compel them to do that for which no compulsion ought to be required. Of all the motives which influence the intercourse between men, *interest* is certainly the strongest—this the employer of the hireling lacks to a great extent to induce him to treat his hireling kindly. The interest of the master in connection with the hireling, is to obtain as much labor from him as possible at the smallest cost; and and when he becomes too old or decrepit from disease or over-labor to work, to get rid of him as soon as posssible, whilst with the owner of the slave, as the slave is his property, and he is bound for his support under all circumstances, we can readily conceive how strongly the motive of the master in taking good care of the slave, and thus extending the time of his usefulness. Your committee, therefore, feel well warranted in adding that the master who could disregard all those motives for good treatment of his slaves, must be brutal indeed, and must be so obtuse in his intellect as to act against the plainest principles of reason. For such cases your Committee invoke the rigid enforcement of the laws, and the expression of a strong condemnation by public sentiment. Your Committee take pleasure in saying, that although there are instances in this as well as in other communities in which the considerations referred to, have not been sufficient to restrain masters from cruelty to slaves, yet these instances constitute exceptions to the general rule; and they are of opinion that there is a gradual improvement going on in this matter. We recommend, however, that this subject be kept before the community, in order to convince all, that interest, humanity and religion, a-

like, demand kindness to slaves, and that the law frown on those who treat their slaves inhumanly.

There is one class of our community to whom all the motives referred to, to induce us to kindness to our slaves, do not apply. Your Committee refer to our overseers. As they have no property in our slaves, of course they lack the check of self-interest. As their only aim in general is the mere crop results of the year, we can readily conceive the strong inducement they have to over-work our slaves, and here masters are often much to blame, for inadvertently encouraging this feeling in their overseers. It is too commonly the case that masters look only to the yearly products of their farms, and praise or condemn their overseers by this standard alone, without ever once troubling themselves to inquire into the manner in which things are managed on their plantations, and whether he may have lost more in the diminished value of his slaves by over-work than he has gained by his large crop. It is a well established fact, that over-work produces premature old age, bodily deformity and debility of constitution, and checks the increase of females. The master, therefore, who has to support his prematurely old, deformed and debilitated slaves, may well question the beneficial results of his large crops, especially when his only increase of slaves is by purchases at high prices. Your Committee take pleasure in referring to the fact, that those planters who are most successful in the acquisition of wealth are generally those who "make haste slow," and who will not "kill the goose, to obtain the golden egg." We are therefore of opinion, that if masters would lay less stress on the mere crop results of the plantation, and place more stress on the proper treatment of their slaves, and the systematic management of their plantations, it would correct the evil referred to. Our overseers ought to have no interest beyond that of pleasing their employers; and nothing but the most inhuman feeling on his part could induce him to treat the slaves cruelly, in opposition to the known wish of his employer. Let the master recollect, too, that he cannot relieve himself from the odium of cruel treatment to his slaves, by attempting to throw the odium on his overseer. It is his *duty* to know how his slaves, are treated and to protect them against cruelty.

From the attachment which exists between the master and slave, your Committee are of opinion that an appeal to their better feelings would be sufficient in most cases to control them. They are aware, however, that this rule must have a limit, and that the law of force must have some share in the government of the negro as well as the white man. In those countries where what is called *voluntary* servitude exists, the force then is necessity. When the laborer is dependent upon his daily income for the support of himself and family; and when the loss of his wages, as is often the case, involves the starvation of his wife and children, certainly no greater force can be applied to him than the threat of turning him off to seek his bread, without a character, or probably with a blackened one In the management of our slaves, this cannot be, as the master is bound for their support. The master must resort to other means of control. After reason and persuasion have been exhausted without producing the desired effect, punishment of some sort must be resorted to. But this should never be carried to a greater extent than is absolutely necessary to enforce obedience to necessary commands. When this mode of discipline is adopted, your Committee do not hesitate to say, that with prudent management, prosperity on the part of the master, and happiness on the part of the slave, is the inevitable consequence. No more beautiful picture of human society can be drawn than a well organized plantation, thus governed by the humane principles of reason. When the negroes are well fed, well clothed, and have not unreasonable burthens imposed on them, but are accustomed to a systematic and regular course of labor, especially if the slaves have been born and reared up in the master's household, or have long been members of his family, and hence have that strong attachment which never fails to grow up between the master and his slave in the course of time, the picture never fails to remind one of the patriarchal days when *Abraham had slaves born in his house or purchased with his money.* Under such a state of things the master knows the man; the man, his master. The master feels confident that the man is attached to him, and will consult his interest. The man feels confident that the master will only require what is right of him, and will abundantly provide for all his wants as well as that of his family. When he or his children are sick, he knows that he will have his master's physician to minister to him. When he is naked, he knows he will be clothed; and when he is old, he knows that his wants will all be supplied to him in his small cottage; during winter he will be warmed by his master's fire, and clothed from his master's flock; and at all times he knows that he will be fed from his master's crib and meat house. The man looks even beyond death, and knows that when he shall have died, he will be decently buried, and his children after him provided for When sickness and affliction happens to such a master, how anxious the solicitude of his slaves for his recovery? And when at last death overtakes the good master, the tears, the sobs and the cries of his faithful slaves point to him rather as their father than their master. This is no fancy sketch—it is a picture, the original of which we have often admired—and we venture to say, that no more beautiful sight has ever been viewed in the countries of voluntary servitude, however great the boast of its superiority as a system of labor over slavery. Your Committee are aware that there are those who doubt the probability of a strong attachment between the master and his slave. But they are satisfied that this position is wrong, and from their experience they *know* that there are numerous cases in the Southern States where the picture drawn above is a faithful sketch of actual life.

With respect to the best mode of governing our slaves, your Committee think they cannot bring the subject to the view of the planters in a more proper shape, than by recommending to them the following or similar rules in the government of their slaves. Of course, these rules are very general, and may be extended, probably, with advantage. But your Committee, after mature reflection, are of opinion that they embrace all the general principles upon which they propose to base the government of our slaves.

Rule 1st. Never punish a negro when in a passion. No one is capable of properly regulating the punishment for an offence when angry.

2d. Never require of a negro what is unreasonable. But when you give an order be sure to enforce it with firmness, yet mildly.

3d. Always attempt to govern by reason in the first instance, and resort to force only when reason fails, and then use no more force than is absolutely necessary to procure obedience.

4th. In giving orders, always do it in a mild tone,

and try to leave the impression on the mind of the negro that what you say is the result of reflection.

5th. In giving orders, be sure that you are understood, and let the negro always know that he can ask for an explanation if he does not understand you.

6th. When you are under the necessity of punishing a negro, be sure to let him know for what offence he is punished.

7th. Never act in such a way as to leave the impression on the mind of the negro that you take pleasure in his punishment—your manner should indicate that his punishment is painful.

8th. A regular and systematic plan of operation on the plantation is greatly promotive of easy government. Have, therefore, all matters as far as possible, reduced to a system.

9th. Negroes lack the motive of self-interest to make them careful and diligent, hence the necessity of great patience in the management of them. Do not, therefore, notice too many small omissions of duty.

10th. The maxim of making haste slow in plantation operations, is equally applicable as in ordinary vocations of life. The meaning of which is, not by attempting to do too much, to over-work and consequently injure your hands. Recollect that the journey of life is a long, and at best, a tedious one. The traveller who wishes to make a long and safe trip, always travels in regular and moderate stages. Do not kill the goose to obtain the golden egg.

Let these, or similar rules be generally adopted, and carried out by the Southern planter, and your Committee do not hesitate to say, that although it may not stop the clamor of wicked men, who seek to make political capital out of the spirit of Abolition, yet their clamor will prove as harmless as the *owl's hoot*—even the slaves themselves will not thank them for their efforts, but laugh them to scorn.

The only food on which this fanatical spirit has heretofore been fed, is the instances in which some among us have failed to carry out the humane principles above recommended. Many of which instances have been carefully collected, properly embellished to suit the taste of old women and children, and published to the world as the legitimate fruits of slavery.

All of which, your Committee respectfully submit.

JOHN A. CALHOUN,
E. E. DUBOSE,
VIRGIL BUBO,
} Committee.

June 13, 1846.

From the Richmond Planter.

HUSSEY'S AND M'CORMICK'S REAPERS.

It is very painful to be compelled to inflict a private injury in the discharge of a public duty; upon a particular system of cultivation we can talk and write without restraint; but when we are called on to discuss the merits of an invention, upon which the fortunes of the originator may absolutely depend, it is a much more responsible and delicate office. We are aware, too, that in introducing a subject of the kind we are opening the flood gates of a controversy that it is often hard to close; we have had the strongest evidence of that fact in the controversy that once occurred in this paper between Messrs. M'Cormick and Hussey, and yet it is to the relative merits of the reaping machines of these two gentlemen that we are compelled again to draw the public attention. Probably not less than fifteen thousand dollars has been spent in Virginia this summer for reaping machines, and it becomes a subject of great importance to the wheat growing community at least to ascertain how such a sum is annually to be dispensed to the greatest advantage. We shall express no opinion ourself in the discussion which must necessarily follow the introduction of this subject, and we would greatly prefer that neither of the gentlemen more particularly interested in the subject would appear in our columns. We will publish statements of facts for either, provided they are made over responsible names, and are short and pertinent. As one of these facts we feel bound to state that we acted this year as the agent for M'Cormick's machine, and that we have heard great complaint of the manner in which it was gotten up; but it is but fair also to state that we believe Mr. M'Cormick himself has been superintending the manufacture of his machine in the State of New York, and that probably his work has not been as well done as it would have been could he have seen to it in person. The following communication is altogether in favor of Hussey's machine:

"I have had in operation on my plantation this year both Hussey's and M'Cormick's reapers. Now, as you have asked me to furnish the 'Planter' with the result of my own experience and opinion as to the comparative merits of the two machines, it is now at your service. I have had them both in operation, (as the weather would permit,) for the last fortnight, and have cut with the two rather upwards of two hundred acres of wheat. Both machines have been, I think, very fairly tested in all qualities of grain, from wheat five feet and more in height, both standing up, and lodged and tangled, and averaging, as is supposed, from thirty and forty bushels down to light thin wheat not averaging more than four bushels, (being some galled hills,) and I am *candidly* and *decidedly* of opinion that Hussey's machine is *vastly superior*. I deem it superior, not only in the execution of its work, but in the durability of the machine.—So well pleased am I with its performance, that I have ordered another machine of Hussey's for my next harvest, and also one, and probably two, for my father's plantation. I consider this machine invaluable to the grower of wheat, and would recommend every farmer who grows even fifty acres of wheat to purchase one. He may rest assured that he will be pleased with his purchase. I shall probably be in Richmond shortly.

Yours, very respectfully,
J. POLLOK BURGUYN.

Occonichee Wigwam, near Halifax. N. C. June 20, 1846.

HUSSEY'S WHEAT REAPING MACHINE.

To the Editor of the American Farmer.

SIR.—I have this year for the first time, purchased one of Hussey's Reaping Machines—the smaller size, at $100. I have so often been disappointed in the too early purchase of new labor-saving and economical inventions, that in this instance, I waited patiently, until it might have received the best impress of the inventor's skill, and I am now gratified, after a fair and full experiment at my late harvest, to make the following report of its performance, in common justice to the inventor, and for the encouragement of those who have not yet availed themselves of its advantages.

I have used the machine throughout my late harvest, and under very unfavorable weather, I have witnessed its expedition and general economy. The harvest was prolonged by continued rains, and the machine was not worked any entire day, from that cause alone; but being desirous to know the extent

of its daily operations I noted the hours of beginning or finishing a lot of 12¼ measured acres of heavy wheat:—viz: from 5 o'clock to ¼ to 4, that is, 10¾ hours; breakfast and dinner time included, say about 2 hours, will leave 8¾ working hours, for the cutting of 12¼ acres, or the rate of 18 acres per day of 13 working hours, which is nearly the time in the middle of June, when the work was done.

I used, with the machine, one pair of mules the whole of my harvest, about 8 days, and without any apparent distress to them—this was done from the difficulty of breaking in any of them, they being all young, to bear the rattle of the machine in motion, and then too, though driven by two men, ran away with it, and luckily or surprisingly without injury to any person or thing—I had for a time, eight binders, but was compelled to add two others—It will be seen that I had a saving by means of the machine of 12 or $15 per day, for scythesmen's wages, besides their board, and the work was better done—the cost of binders, stookers, &c. the same necessarily, in either case, in the proportion of wheat cut.

I verily believe the amount of the seed wheat was saved by the superior performance of the machine.

I loaned the machine to a neighbor, who appreciates it as highly as I do. JOSEPH E. MUSE.

Aug. 1846.

THE AMERICAN FARMER.

BALTIMORE, SEPTEMBER, 1846.

The American Farmer.

The 2d volume of the new series of this journal commenced on the 1st of July, 1846—It is issued on the 1st of each month.

Terms:—Single copies $1—Six copies for $5—Thirteen copies for $10.—Thirty copies for $20.

Sample Nos. will be sent to any one desirous of aiding in the circulation of the "*Farmer.*"

Address SAMUEL SANDS,
Publisher American Farmer,
122 BALTIMORE STREET, BALTIMORE.

☞For a very liberal list of presents offered to our friends to induce an extra exertion in the obtainment of subscribers, reference is made to page 16 of the July No.

We regret our inability to present to our readers in the present No. the Address P. H. M'Leod, Esq., delivered before the Agricultural Society of Poolesville, Montgomery Co. Md. at their meeting in August. Not wishing to divide it, its length precludes our giving it entire, the matter for this No. having been generally prepared, when it came to hand. It shall be given in our next.

We have a communication from "*Cincinnatus,*" on Farm Buildings, with drawings to accompany the same, which circumstances have prevented our giving this month.

A friend in Montgomery County, Md., in forwarding us a considerable list of subscribers, accompanies the same with the following as the heading thereto:

"A desire of furnishing each farmer who wishes it, a cheap, and practical monthly publication, whereby, he can learn many useful improvements in the various departments of his profession, has induced the undersigned "*to Club,*" to effect said object economically—consequently every additional name will lessen individual subscription.—The progressive state of Agriculture, as well as the great improvements in Machinery, farming implements, stock, &c., (connected therewith) urge the necessity of having within his reach a work whereby he can avail himself of such improvements, as his judgement and means may suggest. The "American Farmer," is just such a publication.—Read and judge for yourself—the number of subscribers required is thirty, so that we may have the work for about seventy cents."

ELECTRICITY.—The essay of Mr. *Robert Serrell Wood,* upon the application of electricity to agricultural purposes, will command the attention of scientific readers, and we shall anxiously look forward for a detail of the results of the experiments, which he is making to reduce his theory to practice.

AGRICULTURAL SCHOOLS.—The essay of a "*Young Farmer*" upon the necessity of establishing one or more agricultural schools in Maryland, is worthy of attentive perusal, and while we commend it to our Maryland readers, we seize the occasion to remark, that the Farmers and Planters of every state in the Union should take the subject into consideration, and see that their respective state governments no longer neglect an interest of the very last importance to the well being of every agricultural community.

COMPLIMENTARY.—A distinguished U. S. Senator, in remitting his yearly subscription to the publisher of the "*American Farmer,*" remarks—

"I never paid a dollar more cheerfully or gratefully. The value of the paper is far beyond the price of subscription."

THE ETRURIAN WHEAT.—We requested in our last that those who had raised any of this wheat, the last season, would give us the result of their experience with it—but except the following from Hon. Wm. T. Goldsborough, of Dorchester, in reply to a special request, we have received no answer.—We obtained from Mr. Zollickoffer, a lot of it for sale, but it was found, in getting it out, that the wet weather which was so fatal to the wheat crop throughout this state, just at harvest, had caused injury to the Etrurian also, and consequently, it has been sold at a reduced price from that at which it was advertised.—The wheat raised by Mr. Goldsborough escaped injury, and is a beautiful lot. Mr. G. has sent the surplus from what he intends sowing, to market for sale, and it will be seen by the advertisement, it can be obtained of Messrs. Barroll & Son, Bowly's wharf.

To the Editor of the American Farmer:

SIR—You request me to answer certain questions which you ask relative to the Etrurian Wheat. I sowed a small quantity of this wheat last year for the first time, in a lot containing about four acres. The land was good, but not of that character, which we consider our best *wheat* land.—Much of the wheat in this lot appeared to be winter killed, and injured by the fly, and at one time I thought the crop would be an indifferent one, but the rains about the last of April and first of May brought it on astonishingly. The lot gave me 91 bushels of good wheat, once through the fan, and I suppose it will overrun a bushel or two when it is cleaned.* I think it a good wheat and shall sow some 30 or 40 bushels of it. You have a fair sample of the grain. I do not think it quite so early a wheat as the German, which has turned out better this year than any wheat I have. It gave about 17 1-2 bushels per acre on corn ground. That which was on fallow I have not yet thrashed out. Last fall I sowed several small parcels of wheat of different kinds.—Among them Hardware, Improved New York White flint, and Reed wheat, which was sent to me from Kentucky—these three parcels all turned out well, although I cannot give the product, as they are still in the stack. I also sowed a bushel of China and a bushel of Oregon, from seed raised by Mr. Smeltzer, of Washington County. From these I had a heavy growth of straw—but the grain is very inferior—indeed there is scarcely any of it. I should like to know how the sample of my Etrurian wheat compares with that which you have for sale. I would not like to recommend it for a general crop, because as I said before, I have tried it but one year, and I am a little cautious about recommending any particular variety of seed. About two years ago, I sold some 200 bushels of red May wheat to some of my friends, who took it upon my recommendation; with them it turned out badly, but that same year it gave me 23 bushels to the acre. This year one of these gentlemen made a fine crop of it, and mine was very inferior, only about 10 bushels to the acre on fallow land—so that you see the wheat crop is very uncertain with any variety. This fall I shall sow most of my land with German wheat, but will also sow some 20 or 30 bushels, each of the Etrurian, Hardware, White flint, and Reed wheat. The latter is a small red wheat, and very early, with a clean nice straw, and I think will prove a valuable wheat. Truly, yours, WM. T. GOLDSBOROUGH.

*A subsequent letter from Mr. G. says, the yield has been 96 bushels.

THE AMERICAN HERD BOOK, containing pedigrees of *Short Horned Cattle*. To which is prefixed a concise history of English and American short horns, compiled from the best authorities. By *Lewis F. Allen*.

A work bearing the above title, published at *Buffalo, N. Y.*, has been kindly loaned us, by our respected friend, P. A. Remsen, Esq., and we take pleasure in saying that the *editorial* as well as *mechanical* execution of it reflects credit upon those engaged in getting it up. It is embellished with three cuts—the *first* representing a short horn bull; the *second*, the Durham Ox, bred by Charles Colling, which, if our memory serves us aright, gave celebrity to this distinguished breed, and forced such a conviction upon the agricultural mind of England, of their excellence, as to give them that hold upon popular opinion which they have ever since maintained—the *third* is a cut of a short horn bull. Like the *first*, so is the last, intended to demonstrate to the mind of the uninitiated, *what a pure short horn should be*. Each is so truthfully pourtrayed in all its points and lineaments, as to effect the object intended.

The *history* of short-horns prefixed to the work, though *brief*, is written with that perspicuity and power of condensation, for which Mr. Allen stands almost unrivalled. As an intelligent agricultural writer—as a sagacious breeder—he occupies an enviable rank, and the manner in which he has executed his present work, shows that the task was devolved upon that one above all others among American agricultural writers, who, from his knowledge of the science of breeding, untiring industry, unyielding perseverance, faculty of analysis, and patient research, was the most eminently qualified to supply the American breeders with that which all admit was signally wanted—a register of pedigrees. Notwithstanding Mr. Allen has not met with that aid which a proper regard for the deep interest involved should have vouchsafed—although he has had to encounter the chilling influence arising from the *absence* of that *esprit du corps* which he had a right to expect, by dint of perseverance he has overcome every obstacle of apathy and indifference, and presented to the public upwards of 600 pedigrees. Such indomitable courage as he has displayed deserves the highest meed of praise, and as the book he has made is required by the interests of all Cattle breeders in our country, so do we sincerely trust, that every one engaged in Agriculture throughout our land, who has the means of procurement at command, and a taste for a science at once so essential to the sustenance of man, so exciting in its pursuit and pleasurable in its results, will feel himself called upon to add the American Herd Book to his library.

We notice among the list given in this work, a number of fine animals bred by Mr. Remsen, formerly of New York, but now of this state—some of which are now owned by the Messrs. Small, of York, Pa. whose enlightened liberality and public spirit induced them to secure some of the choicest animals of Mr. Remsen's herd.

INDIAN CORN MEAL.

[Extract of a letter from a high respectable American source in London to a member of Congress.]

"Your prophecy as to Indian corn is now likely to be realized to a greater extent than any one ever hoped for. The Irish are so fond of this new article of food, that they are in a fair way to give up potatoes. At Limerick, ten days since, a riot was created by a false rumour that the millers intended to stop the issue of meal. In Cork the Government sells ten thousand pounds (say nearly twenty thousand dollars worth) each week at one penny per pound; and private dealers sell a great deal besides at a lower price, about four-fifths of a penny."

It is especially gratifying to us to find by the above extract, that the *taste* and *nutricious properties* of Indian corn meal, is in so fair a way to fix upon the palate and judgment of so large a portion of the population of Great Britain. At a very early stage of the contemplated change in the English Corn Laws, we predicted that if the use of corn meal could be but once introduced there, that it would work its way to consumption and general favor. Our reason for this opinion arose from a knowledge of its intrinsic virtues as food for either man or beast, and from the conviction which fastened itself upon our mind, that when those virtues should become known to our transatlantic brethren—when they should have a chance of being tested—that its use must become general, and that from its superiority over the largest portions of breadstuffs used by the laboring classes, that we should find a permanent market for it in England.

Of any great advantages to result to the American *wheat-growers* from the newly adopted Corn Laws of England, we have never had much conceit—as, at best, the American exporters could only come in for their share of supply, to make up the deficiency existing between the demand for consumption in the British Kingdom, and the quantity grown there: and from our remoteness from its markets, compared with that of the wheat depots on the Baltic and Black Seas, and the preference secured to Canadian wheat, the chances of our furnishing any considerable portion of that deficiency must necessarily be small. But as we are differently situated with regard to corn meal—being without a competitor—it must necessarily follow, that should the article meet with a fair trial, its superior properties for human consumption, as well as for the fattening of stock of all kinds, must increase with each revolving year.

One word with regard to the exportation of corn and corn meal. It should always be previously kiln-dried; without this precaution, the quality of either will be deteriorated by the effects of the sea-voyage—therefore, as first impressions are the most lasting, the greatest care should be observed in preparing any corn, or corn meal, which may be sent thither, in order that it may not suffer in character.

PRICE OF WOOL.—We have seen a lot of fine washed wool, of the present season's clip, which sold for 22½ cents per pound. This time last year similar wool readily brought 27, 28, 29, and 31 cts. per pound. Two causes may be assigned for this depreciation in the value of the article. The first arises out of the fact of the loss sustained last year, of from ten to fifteen per cent. by the exporters of the article to England, and the other may be ascribed to the passage of the new tariff bill. The existence of any cause, be it whatsoever it may, is sincerely to be deplored, as from the vast amount of money which has been invested in sheep, in every section of the country, severe and heavy losses will, have to be sustained by the agricultural community, and as that is the first and by far the most important interest of the Republic, whatever effects it, will in its ramifications, spread and injuriously operate upon all others. Among those principles of political economy which influence a wholesome or evil action upon the affairs of communities, there is none more true than this—that all sudden abruptions of fundamental laws, tend to impair confidence, palsy enterprise, and arrest the onward course of the industrial pursuits.

We observed some three years since a disposition manifested among agriculturists to extend the sheep business, with a view to wool-growing, and we then took occasion to recommend, that *moderation* should be exercised with regard to the extent to which it should be carried. We saw at that time, that the *demand* was greater than the *supply*, and that if the number of sheep were moderately increased, a just reward for capital invested, and the expense and trouble of raising wool, would await those engaged in the business. Fearful, however, that the business might, in view of the unsettled state of our national policy, be carried too far, we felt it our duty to warn our brethren of the danger of engaging too largely in the occupation. Were there any guaranty to be found in the nature of governments—in the aspirations and objects of parties—for a continuance of those measures which tend to foster any particular interest, there might be more safety in enlarging the sphere assumed by the operators in that particular branch; but so long as every cycle of a few years shall give birth to a new system of duties, so long will it remain dangerous for men of capital, and especially those engaged in agricultural pursuits, to adventure their means too extensively upon individual branches of business. It may, indeed, be laid down as a safe proposition—that the diversion of labor—the multiplication of objects of produce—offer the best chances of success to the planter and farmer, as should they fail in meeting reward in one, in the others they may find the fruition of their hopes, and thereby make up, for losses.

We have ever been averse from mingling in questions of a party nature, and it is not our present purpose to depart from the rule we had prescribed for ourself, but as a very heavy falling off in the market value of an important agricultural product has taken place, we have felt it to be an imperative duty which we owe our patrons, to honestly state what we believe to have been the causes which have operated to produce the result in question.

CULTURE OF THE POTATOE—SUPPOSED CAUSE OF THE ROT—DEEP PLOWING.

Near Urbana, Frederick County, Aug. 4th.

To the Editor of the American Farmer.

SIR:—The July number of the American Farmer, contains an extract from the proceedings of the Farmers' Club, Medley's District, Montgomery Co., in which is detailed by N. T. Hempston, Esq., his mode of raising Potatoes. I fully concur in opinion with him. Whether the moon affects the potatoe, in quality, or quantity, I know not, but I do know, that one of the most successful growers of that article in Frederick Co., who for 40 years, always found a ready sale at the highest price, made it a point of great importance, to plant in the sign of the crab, when the moon is in apogee.

There is great complaint at this time, of the rot in the potatoe; have I stumbled upon the true cause, when I say, that it is owing to heavy manuring in the hill? I manure, plough and plant, dropping a little plaster on the set before covering; my crop is very fine. Some of my neighbors, with whom I have conversed, who manured heavily in the hill, say their crop is nearly destroyed. What most strongly supports my opinion of the cause, is, that none, with whom I have conversed, have ever found a rotten potatoe amongst those called volunteers.

On the subject of ploughing, I must beg leave to differ from the opinion of the learned President of the club above named, if he intended his remarks to have a general application. Lands that are naturally rich, may be ploughed 12, 16 or 18 inches, but those that are poor, not more than three or four inches, and an increase of depth, should not be thought of, until there is a considerable quantity of vegetable matter, to turn under. I will state three cases that have come under my observation, 1st, a farm lying on little Bennetto Creek, about 4 miles east of Urbana, of medium quality, which was settled when deer and turkeys were killed in the yard, has descended from father to son, and never, I venture to say, ploughed deeper than 5 inches. Yet it is one of the most productive farms that I know. Crops of grain are annually abundant, stock fine, butter, lard, bacon, &c., always for sale. The other two, left Washington county, bought land in Montgomery, at a reduced price, taking it for granted, that all that was necessary, was to plough deep, and their lands would soon be rich; they tried it again and again, but no harvest followed. One of them, broken in spirit and disheartened took to drink, and is gone, his family scattered.

The other tried deep ploughing, but as it did not seem to agree with his land, he turned a large portion of it out as kill-deer commons, and every spring we see his boys peeling tan bark.

If I have suggested anything worthy of notice, it is at your disposal, if not, throw this in the fire and oblige a subscriber, who simply adds the initials of his name.

J. F. S.

P. S.—Since writing the above, I find that two of my neighbors who planted potatoes in old hog pens, using no unfermented manure, have thereby escaped the rot. I opened to add this P. S.

Our Correspondent "J. F. S." asks us:

"Have I stumbled upon the true cause (of the potato rot) when I say, that it is owing to heavy manuring in the hill?"

In reply we say, we think *not*. If heavy manuring in the hill was the cause, the disease would be universal, and manifest itself every year, wherever that practice prevails—and it prevails almost everywhere. The potato is a *gross feeder*, and the knowledge of that fact has induced growers to indulge its appetite freely.

The remarks of our correspondent upon deep-ploughing, are judicious, as the depth of tilth should be increased *gradually*, a few inches yearly, and never without turning under a body of vegetable growth, or undecomposed nutricious manure, the which, in the process of decomposition, would warm. and, by its chemical action, infuse its own life-giving principle into the upturned subsoil. The natural tendency of all animal and vegetable manures, when undergoing that process, is to eliminate and throw upwards its gaseous elements, which, in their ascent, never fail to become assimilated with the superincumbent mass, and thus, by the power of chemical affinity, to form a new compound, and render innoxious the inert subsoil which had, by the plough, been inverted.

The examples of our correspondent form an *exception* to the universality of the benefits of deep-ploughing, but do not furnish a *rule*. Deep ploughing, without manuring, would operate like *medicine* without care subsequent to its administration—neglect in either case could only tend to defeat the object had in view—the *melioration* of the condition of the soil in the one case, and that of the patient in the other.

With respect to the first case cited by our respected correspondent, without professing any knowledge of the fact, we will venture the assertion, that the subject of it is a pains taking, industrious, intelligent farmer—one who collects his manure from every available source, husbands it with proper care when so collected, and applies it with judgment and liberality to his crops.

Of the second case, we shall speak with all becoming mildness, as we desire to tread lightly on the ashes of the dead. It appears, to us, however, a singular calculation for any one to have made, that ploughing deep alone would make *worn out* land rich. However deep he may have made the plough penetrate, he could not expect to bring up vegetable remains beyond the depth of former culture—in turning up virgin clay, to be found in most subsoils, he might find desirable traces of potash—but as to expecting in such quarter, anything convertible into nutritive manures, is a fancy which but few sane minds would have indulged in. Had the gentleman who forms the subject of this case, backed his deep ploughing by liberal manuring, we doubt not that his labours would have been crowned with triumphant success, and he saved from that worst of all possible resorts—the bottle.

If the subject of the third case would employ his boys each spring, in gathering mould and leaves, instead of *skinning trees*, give his land liberal allowances of those materials, and periodical dressings of lime and plaster, he would find that deep ploughing *would* agree with his land. *Deep* ploughing is not a *panacea*, of itself, for worn out lands; but as an auxiliary to mineral, animal, and vegetable manures, it will, whenever fairly tried, prove a most valuable means in the restoration of exhausted lands.

AGRICULTURAL STATISTICS.

We regret to find by a *circular* from the Hon. *Edmund Burke*, Commissioner of Patents, that owing to the refusal on the part of Congress to make the usual appropriation for collecting agricultural statistics, no report upon Agriculture will be issued from his office in future. Those who have been in the habit of receiving this *invaluable document*, will, we are sure, join with us in the expression of profound regret, that Congress, through any notions of mistaken economy, should have been induced to withhold the necessary appropriations to cover the expense of collecting and disseminating the varied statistics of the country, as connected with its agricultural products and resources. As there is no other means of ascertaining, annually, the facts connected with this interesting branch of American industry, it becomes a matter of surprise, that intelligent Statesmen should have done an act, whose effect is, to deprive themselves of the only means of obtaining information absolutely necessary to a proper understanding of the interests of their constituents. We look upon this measure as a reckless abandonment of the welfare of agriculturists—a parsimonious sacrifice at the shrine of dollars and cents of that class of society which forms the base of all others. The *correction* of such evil legislation as this, is, fortunately in the hands of the farmers and planters themselves:—in selecting their representatives, they must look to *character* and *fitness*—they must delegate their representative power to statesmen—disinterested, high-minded, enlightened patriotic statesmen—*not* to mere babbling politicians.

The Prairie Farmer, says:—It is well known to most persons that horses and cattle by accident or otherwise do sometimes eat too much grain; and I have known such cases to prove the death of some in a short time; others again linger for some time, and the disease seats upon some part—most commonly the limbs—and renders the creature almost or quite unfit for use. The simple remedy, when you are satisfied that an animal has eaten too much, is only to take, for a horse, 1½ pint melted lard, put it in a common junk bottle, and turn it down his throat by taking hold of his tongue with your hand and pulling it out one side of his mouth, and put the nose of the bottle in the other side. Manage in the same way with cattle, only the dose may be one pint. And this same remedy I would recommend for creatures that are hoven or swollen by eating too much green clover or any other thing that brings on this complaint.

DRILLED vs. BROADCAST CORN.

To the Editor of the American Farmer.—

Sir,—A writer in the American Agriculturist, who signs himself "*Reviewer*," and whose remarks in the main possess a more than ordinary quantum of common sense, takes upon himself in the August number of that publication to call its editor to task for not telling "those tens of thousands of Southerners" that they should raise crops of "broadcast corn," instead of depending on "corn blades" for their winter fodder.

I beg leave to give you some of my experience in broadcasting and drilled corn. Last year I prepared two acres for that crop, and one half I sowed broadcast, and the other I put in drills of twelve or fifteen inches apart. The preparation of the ground for the two crops was alike, the soil the same, the two pieces side by side, seed the same, and put in the same day. The result was, that the drilled corn yielded fully double if not triple the quantity of fodder. I saw several fields of broadcast corn both last year and this, and not one of them hold any sort of comparison with my drilled corn.

This season I abandoned the broadcast, and rely entirely on the drill. My first crop was sown the 1st of April; it did not come forward very rapidly, but produced even a better yield than my last year's drill. When I harvested my oat crop in July, I immediately plowed the ground and prepared it for a crop of drilled corn. On the 17th of July I put the seed in the ground; on the 18th inst. I commenced cutting it for soiling purposes. The 23d inst., which was the 37th day from the time the seed was put in the ground, I measured some among the best and most upright blades, and found they exceeded *six feet*. The whole field would, at that time, certainly average five feet. This is the finest of drilled corn I ever saw; I hope yet to raise a better. I am well persuaded that three successive crops from the same season, can be made, with proper tillage, to reach in the aggregate *fifteen feet in length of fodder*—the number of tons to the acre I will not venture to estimate.

Peter A. Remsen.

Near Baltimore, August 25th, 1846.

From the Southern Planter.

DRILL HUSBANDRY.

We published last year some startling statements concerning the results of experiments made in drilling wheat, particularly those reported by Mr. Noble, of Delaware. We begged some of our readers to repeat them, if even upon the smallest scale, and report the result for the public good. To a dozen or so we spoke in person, and all promised us that they would make a fair trial of the plan; but such is the devotion of our people to the "good old way" of their fathers, that we believe it will be fifty years after reading such a communication as the following before any farmer in Virginia will even give the thing a trial.

With Dr. Thompson we are personally acquainted, and we know him for a high minded, public spirited gentleman, who may be implicitly relied on, either for the statement of a fact, or the expression of an opinion. He is a Virginian by birth, and like every other one of her self-expatriated sons, he is filled with devotion to the interests of this good old Commonwealth; we know how it would rejoice his heart to feel that he had been instrumental in improving the condition of her agriculture. We copy from the "Farmers' Library."

DRILL HUSBANDRY IN DELAWARE.

Its economy and success—the American and English drill—Hussey's and M'Cormick's Reaping-Machines.

John S. Skinner, Esq.—After the very flattering opinion expressed by you to me the other day in New York, of the improving state of agriculture, and the general intelligence and success among the farmers of Newcastle county, compared with other sections of the Union you have so recently visited, I take great pleasure in forwarding to you for the Farmers' Library some interesting facts which should be extensively known to the whole farming community, in relation to "*Drill Husbandry*," as practiced by several of our largest and most successful agriculturists in Delaware—members of our Society and Farmers' Club. The long use of the drill in English and European Husbandry, you are aware, has been tardily adopted in the United States, where there is still greater need of *economizing the time and money*, and (except for root crops) we have but few and imperfect reports in our journals, of American success and practice in drilling crops of any kind.

In answer to a number of letters received by me, as late President of our Agricultural Society, and Messrs. Sawdon, Jones & Carr, who have for years been in the full tide of successful experiment with the drill, I proceed to inform you that two kinds of the drill are known and used by these gentlemen—the first brought out from England by Mr. Francis Sawdon some ten or twelve years ago—is now manufactured by Mr. Groundsell, of Chester, Pennsylvania, and cost from ninety to one hundred dollars. The other, the American drill, invented and patented by Mr. Moses Pennock, of Kennet Square, Chester county, Pennsylvania, the inventor of the revolving rake, which costs about the same, and although varying somewhat in detail from the other, the principle is the same; each is driven by two horses, the carriage resting on an axle with two wheels; above is the reception box for the seed and concentrated manures or ashes, guano, poudrette, &c., which communicates with from seven to eight tubes or funnels through which the seed is regularly and evenly deposited and covered in the earth. The endorsed letter addressed to me from Mr. John Jones, of Gumbush, is fully confirmed in its statements by Messrs. Sawdon & Carr, all eminent practical farmers of this county, and the inferences from their experience are—1st. That by the use of the drill there is a great saving of seed per acre, from at least two to three pecks of wheat, five pecks with the drill being considered ample. 2d. A greater amount of acres can be sown per day, more evenly covered, and thus materially lessening the cost of agricultural labor. 3d. That when the wheat *is gathered* the *product* is at least *one fourth greater* than when *hand-sown*, after the old method; that it withstands the winter frosts better, is less liable to be spewed or thrown out, and stands stronger and firmer—thereby resisting the inroads upon it of the "Hessian fly," the great pest and destroyer of this valuable grain—all which facts are respectfully submitted on behalf of the Delaware friends of "*Drill Husbandry*;" and permit me to say and prophecy that upon fair trial they *will be corroborated* by our brother American farmers after having fully tested the drill.

The attention of our farmers has been also directed to the utility and importance of the "*Reaping Machine*." I can only say here, that both those of Hussey and M'Cormick are duly appreciated by our Newcastle County Farmers, and that the seed which Sawdon

& Pennock's drills *soon are, or will be, generally reaped* by Hussey's and M'Cormick's reaping-machines.

I will only add, in conclusion, that these drilling-machines will plant wheat, corn, rye, oats, barley and grass seeds, with all the pulverized and concentrated manures at one and the same time. Lime is best and most equally spread by the lime-cart invented and patented for the purpose, and familiar to your readers. The subjoined letter of Major Jones goes more into detail, and is valuable for the facts it contains.

Very truly and sincerely your friend,

JAMES W. THOMPSON.

Washington City, May 16th, 1846.

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DEAR SIR,—I frequently receive letters of inquiry from agriculturists residing in different sections of the Union, on the subject of the drill, or seed and grain planter. These inquiries generally are as to its utility, economy and mode of operation, and whether they could be so constructed that the concentrated manures, guano, poudrette, ashes or plaster, may be sowed with them at the same time of sowing the various kinds of grain, and also grass seeds.

Presuming that you have received letters on the same subject, I take pleasure in giving you my opinion of its worth, so far as my experience goes; and you have within your reach much better authority—that of Francis Sawdon, who is justly regarded as the founder of the drill husbandry in this State, having imported a drill from England some twelve years ago, and used it with great success ever since.

My own experience has been with the *American drill*, or seed and grain planter, (which is an improvement upon the Jethro Tull drill,) made and patented by Moses Pennock in 1841. I have used it for sowing five crops of wheat, three of oats, and three of corn. As it is now made, it is not adapted to sowing grass seeds, or any of the manures.* The rollers are pierced for sowing turnip seed, but I have not used them for that purpose. As the drills are now fixed, they may easily be regulated so as to sow from one bushel of wheat or oats to two bushels to the acre. Ten acres' sowing may be regarded as a good average day's work. I have on one occasion sown eighteen acres, but the rows were long and land well prepared, and men and horses active. I generally drive two horses—some drive three—when sowing either wheat or oats. Pennock's machine sows seven rows, each nine inches apart. The outside drills, being four feet six inches asunder, are used for planting corn.—To prepare for corn, after we have flushed and *harrowed the ground well*,† we run a furrow or horse-path every nine feet, in which the horse (one is enough for planting corn) walks, drawing the drill after him, and planting two rows at a trip, dropping about a quarter of a bushel per acre. I try to thin this out, so that it stands at about one foot apart, one stalk in the hill, giving at that rate about four and a half superficial feet to each stalk in the field, and each stalk separate and not choaked up by another of its kind. The oats and corn pass through the same holes in the roller. The wheat roller or holes would do for rye also. I plough, harrow and sow, always lengthwise of the land.

I believe the wheat crop has been increased at least twenty-five per cent. where the drill has been used. The measurement of the lots of Dr. C. Noble, shows a greater result. I assisted in the measurement of these lots, and I think the account may be regarded as an average result, as given in the wheat crop. For particulars see the letter of Dr. Noble, as published in Mr. Ellsworth's Report, which in part is as follows: One acre sown broadcast, two bushels to the acre, yield twenty-seven and a half bushels; one acre drilled, one and a quarter bushels seed per acre, yielded thirty-five bushels per acre; difference in favor of the drill, eight bushels. Add a quarter of a bushel saved by drilling or in seed, and we have eight bushels and one peck per acre in favor of the drill.

It is true, both of those lots of land were good, the land well prepared, and the seed well put in (as every good farmer's will be.) *I believe that thin lands put in with the drill* will produce corresponding results in favor of the drill. I have not proved those results by measurement on my own land; the reason why, is, because it was *poor*, and I did not wish to show the poverty of my poor old, worn-out farm.

As the best evidence I can offer of the utility of the drill, our keen, cautious farmers have watched the wheat as it grew, after the two first drills used by Mr. Sawdon and myself, and have so far become satisfied with the results that several drills have been purchased in St. George's hundred within the last ten months, some of which put in over three hundred acres last fall, and others are now engaged to be ready for August next.

Some of the other hundreds of Newcastle county are preparing to use them in a corresponding ratio.

I will close this and leave Mr. Groundsell, Mr. Pennock, and Mr. Carr (who I understand has sent to England for the best improved drill—*success to his enterprise*)—and also Mr. Sawdon, to give their views.

Very respectfully, your friend,

J. JONES.

Dr. J. W. THOMPSON, Wilmington, Del.

I am not certain if one bushel of seed wheat or oats is not thick enough. Last year I sowed nine gallons of wheat and less of oats per acre. J. JONES.

Wheatland, May 12, 1846.

*Sawdon's drill does deposit the concentrated manures, and Mr. Pennock has recently called and informed me that his can be so constructed to do the same. J. W. T.

†Here is one evidence of the thorough manner in which these Delawarians do their work: "*After we have flushed and harrowed the ground well*"—young farmers, *do you hear that!*—EDITOR FARMERS' LIBRARY.

CROPS OF FREDERICK COUNTY, MD.

A correspondent writes the editor of the Farmer: The *Wheat* crop of Frederick county *this*, will fall short of that produced *last* year. Those who have threshed, set down the yield at little better than *half* a crop, and in most cases the grain is of quite *inferior quality*. *Oats* has been a *good yield*—*Grass* an extraordinary good one; much of this, however, in bottom land, was injured by the frequent overflowing of the streams of water during the summer. The *Corn* crop promises to be quite an abundant one; the late rains come very opportunely, and will make a good yield *certain*. The ground is in a bad condition now for ploughing—as *hard* as a bake-oven, and this too, notwithstanding the wet season just past. This would argue *too much* rain to be as injurious to the soil as *none at all*. There is but little complaint in regard to the *Potato Rot* in this immediate neighborhood—we have taken up a number of very fine ones altogether uninjured, and those growing give no signs of decay. How are these different *results* to be accounted for when the treatment in cultivation is so near alike in all quarters? cannot research bring the *evil* to light?

Near Frederick, Md., Aug. 10th, 1846.

HORTICULTURAL.

WORK IN THE GARDEN.

As the appointments of no homestead can be said to be complete which has not a judiciously arranged and well cultivated *garden*, we will briefly state some of the matters which should be attended to during this month. And though our hints shall be brief, we trust that the mere mention of the several things requiring attention, will at once arouse each reader to action.

Strawberries.—This is among the best months in the year for planting out a bed of strawberries,—those, therefore, whose gardens may be destitute of this luscious fruit, should seize the present occasion to provide themselves with plants, and set out a bed of them.

The *runners* of the present year, must be selected; trim the roots, and pick off the decayed leaves, before setting them in the ground. The soil best adapted to this fruit is a *moist loam*. They will, however, grow in almost any soil, moderately rich. In the preparation of the bed, it should be manured with well rotted dung, or rich mould, dug deep and thoroughly pulverized—width of beds 4 feet, with alleys between, of 18 inches—the plants 12 inches apart—press the earth well around the roots, and give them a plentiful watering when finished. Should the weather be dry, the plants must be watered every evening until rain comes.

Inoculation or Budding.—Peaches, Nectarines, Apricots, Apples, Almonds, and most fruits may be inoculated during the early part of this month.

Gooseberries, Currants, Honeysuckles, and various other shrubs, may be propagated by cuttings and layers towards the latter part of this month.

Box Edgings should now be clipped.

Evergreens.—The best time to transplant these is the last of this month.

Spinach.—Keep your spinach beds clean—if weeds are permitted to grow, they will cause the spinach to rot.

Lettuce.—Set out your lettuce plants for heading.

Early Cabbages.—Did you take our advice and sow *early kinds* of cabbage seed with a view of securing your family a supply of early cabbages next summer? If you did, the time has nearly arrived when those plants should be set out.

Broccoli Cabbage.—Savoys. Give these a general hoeing, and earth them up as you progress.

Endives.—Tie these for up blanching.

Asparagus Beds.—So soon as the stalks of your asparagus turn yellow, cut them down close to the ground—clean the beds from weeds, and give them a dressing of well rotted stable manure, which must be forked in.

Celery.—Earth up your celery for blanching as soon as it is of sufficient height.

Small salading of all kinds.—Sow seeds of small salading at intervals of a few days during the month.

Rhubarb, Sea Kale.—This is the month to sow the seed of these vegetables.

Shallots, Shives, Garlic, and Garden herbs generally should be set out during this month.

Radish seed.—Sow the winter varieties of Radish seed.

We present this *memoranda*, in the hope that while it may call attention to the enumerated articles, it may also serve to direct a rigid scrutiny to all that appertains to the garden, and thus secure to every bed and border a thorough overhauling, so that no weed or grass be permitted to grow therein.

From "Downing's Horticulturist,"

NEW MODE OF GROWING EARLY SEA KALE AND RHUBARB.—*By R. W. T., of Philadelphia.*

SIR—I have a mode of raising an early crop of Rhubarb and Sea Kale, which gives me these two vegetables a fortnight earlier than my neighbors, and which I will, with your permission, lay before your readers.

About five years ago my workmen were engaged in draining a large piece of low bog meadow. When the ditches were made, a goodly quantity of fine mellow black peat, was thrown out. I had this carted into my kitchen garden. A couple of dozen loads, which were not used in the autumn, were allowed to lie all winter. In the spring, very early, I found to my surprise, that a pretty thick coat of the black earth had by accident, been left on one end of a bed of Sea Kale.

It was at least a fortnight before the usual season for cutting either this vegetable or Asparagus. But already I beheld fine strong shoots of the Sea Kale, pushing their heads above the dark surface of the peat. Indeed, I was then able, from three or four hills, to cut as fine a dish of this vegetable as I ever tasted. It was very finely blanched, and remarkably tender and fine flavored. The roots in that portion of the bed, alongside, that had not been covered by the black earth, did not begin to grow till many days afterwards.

You may easily suppose that I took advantage of this excellent, though accidental, hint. The November following, I covered my whole bed of Sea Kale fourteen inches deep with the peat earth. I was able to commence cutting the shoots, for boiling, the next spring, long before my neighbors; and the size and flavor were certainly all I could desire. I had been in the habit, like most of those persons who raise this esculent, of heaping up a mound of sand every spring, over each hill of Sea Kale. I have now altogether abandoned that way of blanching the stalks. I find the peat a far superior substance for this purpose. Its dark color draws the heat of the sun, and retains it, thus forwarding the growth of the shoots much more than the sand, which has not this quality. I think also, that the heavy coat of peat laid over the bed in autumn, keeps the frost pretty well out of the ground below it, so that the roots are in a fit state to be excited into growth by the first bright weather in March.

Since I have found the value of the peat earth for raising early blanched Sea Kale, I have also tried it with Rhubarb. Upon this vegetable it acts equally well. I cover the crowns of Rhubarb, in the fall, about 18 inches deep, with the black peat soil, heaping it up in the shape of a flattened cone or hill. From such hills I am able to cut nice blanched stalks

in abundance, at least twelve or fourteen days before the roots in the open quarters afford me any stalks. Those who like a fine early tart, will not think this too much trouble to obtain it.

I should also mention, perhaps, that as soon as the season for cutting those plants is past, I draw away all the covering of peat, mix it with my compost heap, or apply it to any part of the garden in need of it. The beds are then dressed and dug as usual, and the plants left to make their summer's growth. I generally dig in a dressing of manure in the autumn, before I cover the beds with the peat.

If your readers will make a trial of this way of raising very fine early Kale and Rhubarb, I am sure it will meet with their approbation.

R. W. T.

Remarks.—We commend this article to the attention of every one having a kitchen garden.

We will only add to the excellent directions for raising early Sea Kale, our surprise that this really delicious and invaluable vegetable is seen in so few gardens in the United States. It is not in the least inferior to Asparagus, to our taste, and it is served to the table much in the same way. Coming at the same time, among the very first of spring vegetables, it is doubly welcome from the scarcity of almost all esculents at that time.

Nothing can be easier than the cultivation of Sea Kale. Any common garden soil that will yield a cabbage, will produce it; once planted, it gives a regular supply for the table every spring, and ought therefore to have a place even in every cottage garden.

The seeds of the Sea Kale may be sown in October or April. Dig the ground thoroughly, and sow them about an inch deep, and at such a distance as to leave two or three roots in a place; the drills about 16 or 18 inches apart.—Ed.

PRESERVING CAULIFLOWERS.

Mr. Sands: I send you a small slip from a number of the old American Farmer, on the mode of preserving Cauliflowers—a plain simple way of protracting the use of this delicious and delicate vegetable—no doubt Mr. Morris would communicate to you for your many readers the best manure to raise this plant, the time to sow the seed and to set out the plants, and the way to protect them in winter, together with all the other little particulars, which would enable a young gardener to raise them with some success.

A Patuxent Planter.

Cauliflowers.—*How to preserve in hot weather, after they are cut.*

J. S. Skinner, Esq. *June* 6, 1826.

Dear Sir,—I send you a couple of Cauliflowers; not that their size merits acceptance or are entitled to your attention in any measure or on any account than that they may serve to make you familiar (if not already so,) with the mode we have adopted to preserve this vegetable—and thereby protract the period *of its stay*. You are aware that they flower simultaneously, or so nearly so that it is either a *feast* or *famine*. To obviate this, when the flowers have matured in greater numbers than can be consumed, cut and suspend them (separate,) in the ice-house. The leaves fade, though the flower does not diminish in worth. You can judge of this fact and appreciate the value of this expedient (taken in connection with such a season as the present,) when you are assured, that the plants I send were cut with thirty or forty others, three weeks ago, and have been preserved as previously stated. I am very truly yours,

John B. Morris.

LONGWORTH ON THE GRAPE.

We have received from the publisher a copy of a pamphlet, on the Grape and Strawberry Culture, by N. Longworth, Esq., of Cincinnati, a gentleman who has devoted much time and attention to the subjects on which he treats—We copy the following extracts from the work, which will be found of considerable interest—The pamphlet is for sale at our bookstore:

"I would here remark, that our European gardeners, do not in general, make the necessary changes, to suit our climate. I have suffered severely, by this adherence to European rules, this season. In my garden I had a most abundant crop of grapes; not a berry lost by frost, or rain, or drouth. But most of them ripen badly, and many of them will shrivel and drop, from cutting off all the tops of the new wood, intended to produce the crop of next season. Had this been done a few days sooner, it would have forced out the fruit-buds of the next vintage. This is done in some parts of Europe, where their seasons are not hot, to ripen the wood, and the leaves are cut off to ripen the fruit. A partial shade, and a free flow of sap, is important with us. In Europe, the south sides of hills are usually preferred. On the Ohio, in a majority of seasons, I believe even a north exposure is preferable to a southern one, and the north sides of our hills are generally the richest." * *

"The Isabella succeeds better at the east, than it does with us.

"The day is not distant, when the Ohio river will rival the Rhine in the quantity and quality of its wine. I give the Catawba the preference over all other grapes, for a general crop, for wine. Sugar was formerly added. The Germans have taught us better. Where the fruit is well ripened, sugar will injure it, where intended for long keeping; where the grapes do not ripen well, I should still add from six to ten ounces of sugar to the gallon of must. It rivals the best Hock, and makes a superior Champagne. The Missouri grape makes a fine wine, resembling Madeira; but is less productive than the Catawba. I have heretofore considered this a French Pineau grape, as it is a delicate grower with us; but I sent some of the plants to my sister in New Jersey, where the soil is poor, stony and stiff. It there grows as luxuriantly as the wild grape of the woods, and is perfectly hardy; and I now deem it a native. I obtained it of Messrs. Prince of Long Island, twenty-five years since. The berry is small, the bunches of medium size, berries free from a hard pulp, and very sweet. The Herbemont is a fine table grape, and makes a fine wine; but is subject to rot. The Lenoir much resembles it, if not identical, which some consider it. I do not. The Ohio is a fine table grape, bunches much larger than either of the former; but experience does not enable me to recommend it highly for wine. It has a peculiar flavor, and resembles a foreign variety I have heard highly lauded, but does not suit my taste. The Bland is a bad bearer: does not ripen well, nor make a good wine, but is a fine table grape. I do not believe it a native grape. Gen. Harrison informed me, that it was introduced into Virginia sixty years since, by a French gentleman of the name of Mazzei. The Elsinborough is a good table grape, and free from a hard pulp. Norton's

seedling is far inferior as a table grape, to the Herbemont, Ohio, Lenoir, Elsinborough and Missouri, which it resembles in the size of its fruit. It has a pulp." * * * * *

"The grapes at the vineyard of Mr. Rents would have ripened better, had one-third of the bunches been cut off early in the season. Where the crop is very abundant, it requires a very favorable season to ripen the fruit well.

"Six hundred and fifty gallons to the acre, is a large yield, and the season must be favorable, or they will not ripen well. A large crop is often occasioned by leaving too much bearing wood. This should always be avoided; for even if the crop ripens thoroughly, too much of the sap is taken by the fruit, and too little left to produce good young wood for the next season's crop.

* * * * * *

"I have for thirty years experimented on the foreign grape, both for the table and for wine. In the acclimation of plants, I do not believe; for the White Sweet Water does not succeed as well with me, as it did thirty years since. I obtained a large variety of French Grapes from Mr. Loubat, many years since. They were from the vicinity of Paris and Bordeaux. From Madeira, I obtained six thousand vines of their best wine grapes. Not one was found worthy of cultivation in this latitude, and were rooted from the vineyards. As a last experiment, I imported seven thousand vines from the mountains of Jura, in the vicinity of Salins, in France. At that point the vine region suddenly ends, and many vines are there cultivated on the north side of the mountain, where the ground is covered with snow the whole winter, from three to four feet deep. Nearly all lived, and embraced about twenty varieties of the most celebrated wine grapes of France. But after a trial of five years, all have been thrown away. I also imported samples of wine made from all the grapes. One variety, the celebrated Arbois wine, which partakes slightly of the Champagne character, would compete with our Catawba." * *

"It has been considered a settled principle, that good wine connot be manufactured in the United States. We have this prejudice to overcome, and the quality of our wine will not of itself, always enable us to do it. Two strong instances occurred to my mind, that happened in our city. A gentleman in our own city, in whose judgement in wines great confidence was placed, could never be induced even to taste our domestic Hock, tho' a great admirer of the imported article. On two or three occasions I knew him to take a glass, and praise it highly; but the moment that a smile from the host told him of his error, he backed out, *readily discovered* his error, and could not be induced to make a further trial. But on a certain occasion a friend invited him to dine with him, and drink a glass of superior Hock, recently sent him as a present. The bait took—the gentleman praised the wine highly, and pronounced it equal to any he had ever drank, and proved his sincerity by not leaving the table till he had two bottles under his belt; and for the next month, never met his host, without enquiring if all his fine wine was gone, expressing a great desire to give it a second trial. After he was fairly committed, he was told that it was the native Catawba. From that day he knocked under, and acknowledged his prejudice had blinded him. The other, was a comparison of domestic wines from our different vineyards, by a dozen of Hock drinkers selected for the occasion. The gentleman who acted as chief of the judges, was a great admirer of the Spanish Mansinaelle, and with a view to cheat the company, I slipped in a bottle of his favorite beverage. Whilst his brethren were tasting the wine, and expressing their opinions, their leader silently tasted each bottle, but said not a word, till he had tasted the whole. He then remarked, he should reserve his opinion as to the best bottle; but he would promptly decide which was the worst bottle on the table, and placed his hand on the Mansinaella. I told him I concurred with him in opinion, but that he might change his, when advised it was his favorite Spanish wine, and from the same cask that he had always pronounced a superior article.

To insure success, we must observe great care in selecting the fruit. Select good sweet casks, and use cleanliness in expressing the juice, and skill in the process of manufacture, and preservation of the wine. Keep it in a cool cellar, cask tight, and carefully rack the same yearly, till the wine is perfectly fine, and fit for bottling. For wines that have no alcohol added, require tight casks and cool cellars, to keep them sound. They are less subject to run into the acetous fermentation with us, than they are in France and Germany. To the ropiness of which they complain, our wine is not subject. It is a common saying in France and Germany, that, 'a poor man cannot make good wine.' The reason is obvious. The rich man not only has more influence in obtaining favorable opinions, but he also uses more care and skill in the manufacture. The poor man must sell his wine as soon as made. The rich man retains it till it is improved by age, and never sells any under his own name, but that which proves to be of superior quality. The vintage of bad years, is sold without a name. So much depends on manufacture and reputation in Europe, that wine from the same variety of grape, and the vines divided by a footpath in the same vineyard, have very different reputations. The one will bring $18 per dozen, where its neighbor will not command $3. Many commence the manufacture at the lowest price, and in a few years by great care and skill command the highest.

"The reputation of particular vineyards changes with the tenants. On the bank of the Ohio, two miles below our city, I saw some Germans at work, trenching, banking, and walling one of the most steep, rugged, and stony hills in the country. To have hired the work done by the day, would have cost from $300 to $400 per acre. When completed, it will be a lovely spot. The cost to them is a trifle, for the work is done in the winter, when they have no employment. They raise their own hominy and sourcrout. And it will not be a serious loss if they occasionally partake of a quarter of lamb, and they can buy it at ten or twelve cents per quarter."

Cut Worms.—To the remark that "cut worms may be destroyed by continued tillage and a naked and open soil,"—I beg to say that the cut-worm would not be found in corn, were it not planted in sward or sod-land. They are the progeny of a species of beetle or other insect, which could never propagate its kind without the aid of dung, which is found in grass fields, which have been fed by horses or cattle, and in this they enclose their egg or eggs, and sink them a given distance below the surface; hence, an autumnal or winter plowing of such land destroys them by exposure to the rains and frosts of that inclement season—a doctrine which at least has met the concurrence of every practical man among us.—*Boston Cultivator.*

THE FASTOLFF RASPBERRY:

An account of its origin, qualities, &c., with an engraving of the fruit. By the Editor of Hovey's Magazine.

The first information of this very superior raspberry, is an advertisement by Messrs. Youell & Co. in the *Gardner's Chronicle*, offering the plants for sale; this was in the autumn of 1842. In the summer of 1843, specimens of the fruit were exhibited before the London Horticultural Society, for which a premium was awarded; specimens were also sent to Mr. Robert Thompson, who stated that it was "very large, obtusely conical, and of rich flavor, far exceeding, in this respect, some other new and large varieties."

In the fall of 1844, when in England, we made many inquires concerning this new variety, and of those too who had seen the fruit; and we every where heard it so highly spoken of that we immediately wrote to Messrs. Youell & Co., and engaged a quantity of fine plants. With their answer to our letter, they also sent us a beautiful drawing of the fruit, a copy of which we now annex.

This variety is said to have originated, long since, in a garden in the neighborhood of Yarmouth, on the eastern coast of England, where it was found growing in an old laurel hedge; from the size and appearance of the fruit, as well as its excellent quality, young plants were removed to a favorable place, where they produced abundantly and showed the very valuable properties which have given it so high a reputation. The place where it was found growing was a garden attached to an old castle, which was formerly the residence of Sir John Fastolff, from whence its name.

In the season of 1844 and 1845, the Fastolff raspberry was again exhibited by Messrs. Youell & Co., and again received the prize; thus testing its merits before such a tribunal three successive years.

The vines in our garden were set out last year, and but little can be expected from them until they get well rooted, and throw up strong shoots 6 to 8 feet high; then will be the opportunity to see how valuable it will prove in comparison with the Franconia —a variety which does not appear to be known in England. They have, however, borne a sufficient quantity to show that its merits have not been overrated, and to warrant us in recommending its extensive cultivation.

The Fastolff is very large, nearly the form of the Franconia, with very large grains, and of a bright and rich color: the flesh is tender, high-flavored and excellent, and will compare in this respect with the Antwerp. It is not so solid a fleshed fruit as the Franconia and does not carry so well, and for the market, perhaps, it may not be quite so valuable as that variety; but all who wish for a most delicious fruit, and at the same time an abundant crop, will

prefer the Fastolff. It ripens about ten days earlier than the Franconia, and has the merit of bearing in long succession.

To ensure good crops, high cultivation is necessary; the ground should be sufficiently good to induce the plants to throw up shoots to the height of 6 or 8 feet. These should be headed partially down in the spring, when they will throw out very large clusters of fruit. Plantations may be made in October or April; but if at the former season, they had better be covered with a little coarse manure, and a small crop will then be produced the first year.

Samuel Feast & Son, Baltimore, can supply this variety of the Raspberry.

[*From the proceedings of the N. Y. Farmers' Club.*]

METHOD OF PRESERVING APPLE TREES FROM INJURIOUS INSECTS.

By E. Roberts.

Having devoted myself for three consecutive years to searching for the causes which destroy so large a number of our elms and cider apple trees—and after having operated by a process of my own, upon more than twelve hundred of these afflicted trees, of all ages and sizes, I believe that I have attained results so satisfactory that the Academy of Sciences should permit me to communicate the following observations. [I am engaged in a more extensive memoir on this subject.]

The diseased tree in question, owe their deplorable condition to the interception of the descending sap by the larvæ of the insect, *Scolytus destructer*, subarmatus et multistriatus, accompanied with the *Cossus ligniperda* for the elms—and those of the *Scolytus prumi* accompanied with the *Calidium* for the cider apple trees. Of those of the *Hylesinus crenatus* for the Ash tree—*Fraxinus Excelsior*, &c., all tending to disorganize completely the inner barks of the trees, until death takes place.

The *Scolytus* and *Cossus* attack the Elms in large towns and cities where we readily believe that there are causes predisposing to this injury. But they also attack the elms of the country where they are in the very best condition to flourish. This disease which has struck so many Elms and which threatens almost to exterminate them from our plantations, in a short period of time, is due almost entirely to the propagation of the larvæ of the Scolytus, which have so greatly increased within the last twelve or fifteen years, that it would be difficult to find to-day within the circuit of Paris—or even in the entire Department of the Seine, a single tree which has not been attacked. The larvæ of the Cossus deeply wound the ligneous part of the tree, without too much endangering its life.

The simple taking off in parallel strips, longitudinal, the old bark, down to the young bark (where the seat of evil is) (you must not go down to the Libec)—from all the large branches as well as the trunks of the Elms, Apples, Ashes, &c., making from two to six strips according to the size of the trunk or branch, is sufficient to completely purge the tree of the larvæ which infest it, and will regenerate, not only the infested bark of these branches—but all the bark. Experience has proven to me that trees, especially Elms, entirely deprived of their old bark, can sustain the greatest cold and drought without any unguent—that of Saint Fiacre or any other whatever. This is an economical and certain method.—The old bark is worth something for fuel or may be used mixed with Oak bark for tanning.

I make the incisions on the large branches as high up as possible towards the sources of the descending sap. This decortication or taking off the old barks perfectly destroys the larvæ of insects, and also remarkably augments the production of wood in the stationary trees that are stunted (rabougris) such as elms and oaks. Now, admitting that in Paris the large elms of seventy or eighty years of age and the middle sized ones of thirty or forty years old, produce annually, the first a woody circle of from one to two millimetres thick, and the latter from two to five, the trunks of such trees stripped entirely of their old bark, formed, the first woody circles of from four to five millimetres thick, and the latter from six to eight millimetres. This remarkable increase I observed to continue in the same proportions the following years. This process will restore fecundity to old fruit trees.

This operation is not new, but it has been fortunately much extended. Knight says that apple trees which he had partially barked, not injuring the tender inner bark or wood, had gained in diameter in two years more than in twenty years before.

Dr. Underhill, of Croton Point—I have tried experiments fifteen years ago on the barking of trees. I have circled some. A new bark is always formed where the old bark is taken off. It may be readily done after the eighteenth or twentieth of June to the last of June, or fore part of July. The French mode of taking it off in strips is perfectly safe. If you try to take off the bark at any other season of the year you will not find it possible; you can only shave it off with a drawing knife or other cutting instrument. I have tried this experiment of taking off the bark from a single limb of a fruit tree, and found it to render that limb very prolific of fruit. It seems that Europe is now troubled with an unusual number of insects, as well as our country. They have increased astonishingly in number, and many new kinds have appeared.

Mr. Wakeman presented a letter from the Consul at Glasgow—Mr. Cowdin, and remarked that Mr. Cowdin was an able, intelligent and patriotic member of the Institute, and that his zealous efforts to introduce the use of Indian corn into England merited high consideration. Mr. Cowdin states that he had witnessed on the last of May the distribution of corn bread to 550 men and women of the Duke Street Prison, and that they all expressed their satisfaction with it. He thinks that it will soon be introduced into the charitable institutions of Glasgow; and that he will continue his efforts for its general use in England.

Wm. J. Townsend presented stalks of Scotch Imperial Oats with grain on them, from his father's farm at Astoria. The stalks measured six feet two inches and one half in length, and one of them measured at a joint near the root an inch in circumference. The grain is good. This kind weighs forty pounds per bushel. The seed was obtained from our worthy Chairman—Mr. Allen, and raised two years ago by Dr. Field, of our Board of Agriculture.

Chairman—This oat stalk is a phenomenon in size; some of these oats weigh forty pounds, other oats only twenty eight to thirty pounds.

Mr. Steele, of Jersey City—Presented a branch of one of his gooseberry bushes, a foot long, which had on it twenty-eight perfect berries, some of which measured three inches and a half in circumference. Mr. Steel imported the plants from England, and has let them grow their own way, without much culture or pruning.—*Farmer & Mechanic.*

Ladies' Department.

FLORICULTURE.

WORK FOR SEPTEMBER.

Prepared for the *American Farmer*, by SAMUEL FEAST, *Florist*,

Green-house Plants.—Give these their requisite attention, such as tying up, repotting, cleaning, &c. in order to prepare them for their winter quarters.

Camellias.—Continue to syringe these, as heretofore, and attend carefully to watering at the roots.

Chrysanthemums should receive their final repotting.

Oxalises and other Cape bulbs should be attended to, as directed last month.

Verbenas.—Cuttings of these, may be put in, for preservation through the winter.

Stocks, &c. which were sown last month, should be potted for blooming in winter and spring.

Carnation layers, which have taken root, should be potted in light rich soil.

Geraniums.—Head these down, (if not done last month,) and repot in rich loamy soil.

Roses intended for winter blooming, should be repotted, or if in large sized pots, give a top dressing of rich soil, or manure.

Dahlias.—Tie up to their stakes as they advance in growth, in order to preserve them from the effects of the heavy storms, which are so prevalent at this season of the year.

From the London Horticultural Magazine.

THE CULTIVATION AND MANAGEMENT OF ROSES.

PROPAGATION BY LAYERS.

The Rose will propagate from layers. To do this, some merely select a lower branch, and bending the wood sharp between two joints, peg that down under ground in autumn; it will root well by the following autumn. Others cut a notch in the wood on the upper side, which makes the bend sharper; but there is more danger of breaking it. Another method is to run a knife through the wood, so as to split it, and then give the wood a little twist: but most of the sorts will root if only pegged under the surface. That, however, is rarely resorted to; and when it is considered what facilities for propagation are offered other ways, it is no wonder. The laying should be done as soon as the wood has ripened, and the pegs to be used should be like a miniature hooked walking stick, which it is easy to form out of any branch of wood. This hook is thrust into the ground firmly, to hold fast the whole winter and summer season. In the dry weather the layers should be watered, as the trees themselves, or bushes, frequently prevent the rain from coming near the surface, where the branch is pegged down, and they would in such case, have no encouragement to root. In the autumn of the next year, examine them all before they are cut off from the present root, and if rooted, of which there will be little doubt, cut the new plant away with all the new root; and in planting it out in another place, shorten the portion above ground to half its length; and at pruning time in the spring, cut it down within three or four eyes of the ground, that it may form a bush. Layers of some Roses strike almost immediately; and from this facility it is a common practice to lay Roses all over a bed by pegging down the branches on the surface, at small distances, and thus cover a whole space with Roses, which have rooted at almost every joint. The flowers in such cases are very strong; but a bush thus treated, and every branch layered, would cut up into an immense number of plants.

MANAGEMENT OF THE ROSE GARDEN EACH MONTH IN THE YEAR.

JANUARY.—Look well to all standard-roses, to see that their stakes are firmly in the ground, and the stocks or trunks well fastened to them. If the heads of Standards are, as they frequently, indeed, are, very large, compared with the hold they have upon the stock, it is necessary that the stock to which the tree is fastened should reach partly through the head, and be fastened to the head itself. It is also desirable, when very large growth has been made, to shorten, though not properly prune, all the longest branches, to lessen the head, that the wind may not have too much power. If you have not provided yourself with stocks before this month, lose no time, and when procured, prune the roots into moderate form, for they will frequently be found straggling and awkward. Besides planting out a number in rows, to be worked in the open ground, put some of the most compact rooted in pots, and plunge them, making a post-and-rail sort of frame along them to fasten the stocks to, and prevent them from being disturbed by the wind; also, if you have not got in all the Roses you want, order them and plant them.

FEBRUARY.—Look over the established stocks, and see which are most favorable for grafting; and if you have any wood of Roses you intend to graft, leave it on the trees; but if you have to obtain wood, seek for it in time, and if you get it, plant the thickest end downwards in the ground, in some shady place, because they ought not to be grafted till next month, and the cuttings will keep some time. The China-roses in the house, and Roses in the forcing-house, must be kept well syringed, watched carefully, that, in the event of green-fly attacking them, they may be fumigated, as well as syringed. Roses in pots should be kept a little moist, and if not pruned in autumn, should be pruned directly. Look to a supply of wild stocks, if you have not yet completed your arrangements.

MARCH.—Prune all Roses which were left half done in the autumn, or not done at all, especially grafted and budded ones of last year, as they have this year to make some growth. Stocks may still do if the season is backward, but not a day must be lost. Look over all the standard trees, examine the pushing buds, trim out all weak shoots from the buds, and cut away all shoots from the stock. This must be always considered of first consequence, for the growth of a branch from a Stock will completely check the growth of the head. All grafted and budded trees, when once fairly growing, should be deprived of all means of growth from the Stock itself. It is not wise to destroy altogether the growth of the Stock above the graft or bud, until the union and subsequent growth of the graft or bud itself are well established; but this once accomplished, leave no vestige of growth belonging to the Stock, and constantly rub off every bud. You may begin grafting this month.

APRIL.—If any suckers appear among established Roses or Stocks, worked or unworked, remove the

earth down to where they join the root, and cut them off close. If the Rose quarter is at all infested with snails or slugs, use all means to destroy them. Inverted flower pots, tilted on one side, will catch many snails, cabbage leaves laid on the ground, and examined daily, will entrap slugs. All Stocks on which grafts or beds failed last season must be looked upon as new Stocks, and cut down to where they appear alive. The shoots upon which buds were placed should be cut off close, as well as side-growths, if they are intended for budding; but if for grafting, the side shoots may be strong enough to graft on; for if grafts, and the shoot grafted on, be nearly alike, the graft may be all the safer, and the place of union more completely healed than when small grafts are placed in large Stocks. This month is a good one for grafting, though the operation may be performed successfully in March. Cut back to two eyes all that have been left unpruned, by which late pruning back, the blooming will be protracted considerably.

MAY.—This is an important month with the Rose. First and foremost, the vigilance in looking for the breaking buds of Stocks, which would rob the head of its growth, must be doubled, and every three or four days they must be examined and rubbed off.—Suckers must also be grubbed up the instant they appear. The shoots of the buds of last year will make rapid growth, and require to be screened that the wind may not break them out or damage them; and it is a very good plan to tie a stick to the stem, to reach a foot above it, and this does well to support any of the shoots. But when a bud throws up a very strong shoot, it is well to take the top off as soon as there are two pair of leaves, for it will make the shoot form a head the first season; but, in any case, the shoots must be supported by a loose tie to the stick above mentioned.

JUNE.—This treatment may be continued throughout the month; and in all the summer, or growing months, great diligence must be used to prevent the Stocks from growing from their own wood, instead of throwing all their strength into the grafts and buds. It is time also to be looking out for sorts you intend to bud with, either by buying the plants outright, or bespeaking buds for the season; and if any come in your way about the end of the month, do not be afraid of budding on the strongest wood you can find of the present season's growth among the Stocks, though you may properly choose a later season if you have nothing to hurry you.

JULY.—If this month of the season be at all forward, you may bud; and if you have wood given to you when you are not ready for it, put the ends in wet sand, and a hand glass over them; but the sooner you can use the buds after you have got them the better. The Stocks must be cut in completely all over, except one or two eyes beyond the bud on the branches in which the bud is inserted. All China-roses in pots or out-of-doors, may be budded, and so also may all the smooth-barked kinds.

AUGUST.—Continue the budding, and using every precaution to prevent the Stock from growing, and to remove suckers the instant they appear above ground. Nothing should be allowed to grow, except, just beyond the bud, a shoot may be beneficial, as it draws the sap past the bud; but as soon as it is united and doing well, anything growing beyond it may be broken off, or bent down to check it a little. Cuttings of the smooth-barked kind will strike almost every month in the year; but at the end of this month, whatever you may be anxious to propagate may be struck in the shade, under a hand glass, or even quicker where there is a little bottom heat.

SEPTEMBER.—You may now examine the budded plants, and undo the ties of any that appear to swell, tying them more loosely, although tight enough to hold in the bud. If any of the buds have failed, you may open a fresh place, and insert others, but if well done, this will seldom be the case. Continue to remove any shoots or eyes that are showing growth in the stock, for on this much depends. Cuttings from the smooth-wooded kinds may be taken and struck and any that are struck may be potted off in small pots.

OCTOBER.—Towards the end of the month look out for healthy stocks, or get some one in that way of business to collect for you. Always choose, and make any one who undertakes to supply you understand that you require strong stems, perfectly straight, with compact roots, that have not been much damaged by removal. Any that you get should be at once trimmed and planted in rows, about eighteen inches apart, and the rows wide enough to enable you to go up and down them well, to operate in the way of grafting and budding when required. Many of the budded stocks may now be united altogether, but it is not well to cut the branches in which they are budded close down to the bud until the spring months. As they would be more susceptible of damage by frost, let them all be properly sheltered, and fastened, if they have become loosened. Shorten the longest branches of Standard-roses, that they may not hold the wind so much; and although it would be improper to prune, their close back branches may be cut clean away, because they are of no use on the trees. Cuttings of the China and smooth-wooded kinds may be taken now for general propagation. The plants will be the better for losing the wood, especially all the dwarfs in pots.

NOVEMBER.—This is the best month in the year, if the weather is dry and open, for planting out the garden sorts of Rose trees and bushes; therefore, all removals should be performed as soon as convenient, according to the plan pointed out in the foregoing treatise. The leaves of all the garden sorts are falling, or have fallen. Some of the perpetuals, and the China and hybrid kinds, are, in mild autumns, still growing, and perhaps blooming. Such must not be touched till the leaves have turned yellow, or have dropped; but, in all other cases, where the leaves have faded, the removal is kindly and beneficially done. Stocks may be procured and planted, and if the permanent planting cannot, for any particular reasons, be done now, they must be temporarily planted or laid in the earth, in a sloping direction, and the roots well covered with mould, which must also be well shook in among the roots and fibres. Cuttings may still be made of the smooth wood-kinds and placed close together in pots of mould, with half an inch thickness of sand at the top. These pots must not be allowed to dry, but they may be put in a pit or green-house, or plunged under a hand-glass in the border, if you can answer for covering them from frost.

DECEMBER.—Planting goes on well this month, if the weather be dry and open; but if wet, and the ground does not work well, it is better deferred; for if the planting is done when the soil will not crumble well, and go between the roots, they cannot succeed. Look well to last month's directions, and attend to them in all respects, if not done before.

How to drive away Mosquitoes.—Fumigate the room containing them, by burning brown sugar on a shovel or a pan of coals.

TOMATOES FIGS, PRESERVES, PICKLES, AND CATSUP.

Seize the present occasion, before this vegetable is gone, and prepare *jars* of *tomatoes figs,—preserved tomatoes—pickled tomatoes*, and tomatoes catsup; and while putting them up, be sure to do so in such quantities as will carry you through the ensuing season—besides being grateful to the palate in any way the tomatoe is prepared, it is most assuredly one of the most healthy vegetables that is grown.

Horse Radish.—If you would have a supply of horse-radish through the winter, have a quantity grated while the plant is in perfection; put it in bottles, which fill with good vinegar, and keep tightly corked.

Plum Cake.—Make a cake of two cups of butter, two cups of molasses, two eggs, one cup of milk or buttermilk, one tea-spoonful of salaratus, or volatile salts, (which is better,) one tea-spoonful of essence of lemon, two nutmegs, and flour to make a stiff batter.

Beat it well; then add one pound of raisins, stoned and chopped, one pound of currants, well washed and dried by the fire: and one or two quarters of citron.

Bake in a quick oven.

This is a fine rich cake, easily made and not expensive.

Crumpets.—Take three tea-cups of raised dough, and work into it, with the hand, half a tea-cup of melted butter, three eggs, and milk to render it a thick batter. Turn it into a buttered bake pan—let it remain fifteen minutes, then on a bake-pan heated so as to scorch flour. It will bake in half an hour.

Take out the wafer, split it open with a knife and butter it, or you may sprinkle it with pounded sugar and roll it over a smooth stick made for the purpose. The iron should be greased.

Nice for Roaches.—Mix together a table-spoonful of red lead and Indian meal, with molasses enough to make a thick batter, and place the mixture at night on a plate or piece of board in the closets or on the hearths frequented by the cockroaches. They will eat it and become poisoned thereby. The dose is to be repeated for several nights in succession.

CHEAP PAINT.—An Ontario Farmer gives the following recipe for cheap paint. He says he has tried it on brick, and finds it well calculated to preserve them, and prefers it to oil paint. He says, also, that it will last longer on rough siding of wood than oil paint will on planed siding or boards.

Take one bushel of unslacked lime and slack it with cold water; when slacked, add 50 lbs. of Spanish whiting, 17 lbs. of salt, and 13 lbs. of sugar. Strain the mixture through a wire sieve and it will be fit for use, after reducing with cold water. In order to give it the proper color, three coats are necessary on brick, and two on wood. It may be laid on with a brush similar to white-wash. Each coat must have sufficient time to dry before the next is applied.

For painting inside walls, take as before, one bushel of unslacked lime, 3 lbs. of sugar, 5 lbs. of salt, and prepare as above, and apply with a brush.

You can make any color: use for yellow, Ochre instead of whiting; for lemon color, Ochre and Chrome Yellow; for lead and slate color, Lamp-black; for blue, Indigo; for green, chrome green. The different kinds of paint will not cost more than one-fourth as much as oil paints, including labor of putting on.

DISEASES AMONG HORSES.—In some of the counties on the Eastern Shore, the *Blind Staggers* prevails among the horses to an alarming extent. For this disease Mackenzie has this prescription:

"Bleed the animal copiously—taking 2½ quarts at once—then give him half a pint of linseed oil, the same quantity of castor oil, 40 grains of calomel, 60 of jalap and 2 ounces of the tincture of aloes. Give him warm mashes twice a day."

Blyth, a distinguished English Farrier, has thus brief direction of treatment:

"The cure is to bleed and *purge*."

DISEASE OF THE HEELS.—We have heard of a disease among the horses in part of Baltimore County, which from the description we have received of it, we presume to be greasy heels, probably resulting from dirty stables. The cure *could* be effected we think by cutting the hair close around the sores, and washing the diseased parts twice a day in a solution of warm soap and water. After each washing, dry with a cloth, and wash with a solution thus made: 2 oz. alum and 2 drachms white vitrol to be dissolved in a quart of water, dry the feet with a cloth and dust with flour of sulphur. While under treatment great attention should be observed in keeping the stalls *clean*.

Give also a drench consisting of 1½ oz. saltpetre and ½ lb. glauber salts dissolved in water—this must be repeated twice a day until the sores manifest a disposition to heal up.

The food—warm mashes.

The Staggers.—We learn that over fifty horses have died in the neighborhood of Jamaica, Queen's county, L. I., within the past few days, of a disease which is either the "staggers," or much resembles it. It is said that in all instances death followed* to those horses which were exposed to the sun and night air, and to none that were sheltered.

*We have no doubt but that it was exposure to the *sun* which produced the disease.

We learn from a gentleman of Carroll county, that a disease is prevalent among the Horses and Cows of that county, which is supposed to be occasioned by poisonous weeds. A similar disease was prevalent some years ago in Ohio, and in answer to the inquiries of a correspondent, the Editor of the New York Agriculturist thus describes the cause and remedy for the disease:

"Our correspondent has met a frequent disease. It is caused by poisonous weeds. The locality of the affection shows this, viz: the mouth and the feet, the only parts so constantly in contact with the ground as to be acted upon by weeds, to the production of disease. There are several weeds that are poisonous, and these are more virulent in wet than in dry seasons. The summer of 1842 was in the Ohio a wet one, and the growth of weeds consequently great.

What particular weed caused the affection mentioned, cannot now be known. In the vicinity of New York there are several weeds which, when allowed to grow freely, produce like diseases. The treatment is: 1st, bleeding, if there be much general inflammation, which is sometimes the case; 2d, bran mashes, with Glauber salts, in doses of from half a pound to two pounds, according to the size and age of the animal, and half to a whole tea-spoonful of saltpetre per day, to cool and purify; and 3d, the application of lotions, cooling and drying. Of these, sugar of lead is the best, unless the discharge from the ulcers is very abundant, when copperas may be first used, to be followed by sugar of lead.

TALL STALK OF CORN.—Mr. Wm. Jessup, of Baltimore Co. left with us a few days since, as a specimen of the corn on his farm, a stalk which measured 10 1-2 feet to the tassels at the top of the stalk, and the blades towered about 3 feet beyond. It had not done growing when pulled, and consequently there is no telling to what height it would have reached. The blades were unusually large, say 7 to 8 feet.—Mr. Jessup's corn, presents a splendid appearance, and the crop in Baltimore County, generally, will be very large.

CROPS IN QUEEN ANNE'S CO. MD.—A correspondent writes us, under date of Aug. 25th, as follows:

"The crops for the present year in this County, are very bad, except Oats, which are tolerable.—The wheat crop was almost totally ruined by the heavy and continued rains during harvest, together with the scab, rust, and smut before that time. Many farmers will, no doubt, be broken up, on account of their bad crops, and the very trifling price in Baltimore."

THE COTTON CROP.—We find by a statement in the National Intelligencer, prepared by a merchant of Mobile, that from the best sources of information from the Cotton growing sections of the country, the crop of the present season will not exceed 2,000,000 bales. We notice in the various Southern papers, that the cold wet storms of March and April, the wind and hail storms of a more recent date, and the destruction by the army worm and caterpillar, render the prospect of the planters cheerless in the extreme.

METEOROLOGICAL TABLE, FROM 28TH JULY, TO THE 28TH AUGUST.

Kept at Schellman Hall, near Sykesville, Carroll co. Md. Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 6 o'clock, p. m.

	Wind.			Temperature			Remarks.
28	NE	SE	W	69	77	83	Cloudy Clear
29	NE	W	W	72	83	88	Clear, Gust 1-4 in. Clear,
30	SW	S	S	62	88	84	Clear, Cloudy, Gust 3-8 in. cle'd
31	W	W	W	72	87	89	Clear
1	W	W	W	69	80	75	Clear
2	SW	NE	NE	69	80	75	Clear
3	E	S	SW	63	80	76	Clear
4	W	SW	SW	60	85	77	Clear
5	W	W	W	66	87	80	Clear
6	W	W	W	70	88	83	Clear
*7	W	W	S	73	86	74	Clear, Storm 5-8 in Rain
8	E	W	SW	71	84	83	Fog, Clear
*9	W	W	W	76	86	75	Clear. Gust 1-2 in
10	W	W	W	71	78	75	Rain 2 in. Clear
11	NW	W	W	68	79	73	Clear
12	W	W	W	67	80	76	Fog Clear
13	W	SW	SW	70	85	81	Clear
14	W	W	W	71	88	79	Fog, Clear Shower
15	W	W	W	73	84	76	Rain 2-8 in Cloudy, Clear Rain
16	W	SW	W	72	84	81	Clear [1-4 in.
17	W	W	W	75	82	77	Rain 1-4 in Clear dry & high w'd
18	NW	NW	W	67	77	77	Rain 5-8 in Clear
19	W	E	E	60	75	72	Clear
20	E	E	S	64	75	67	Clear
21	W	W	W	69	82	77	Clear
22	W	S	SW	69	75	75	Rain, 1 1-4 in Cloudy
23	N	W	W	72	75	74	Cloudy Clear
24	NE	NE	E	65	77	72	Clear
25	E	E	E	64	69	68	Cloudy heavy rain at night
26	E	E	E	58	67	65	Rain 1 3-8 in Cloudy fine rain
27	E	W	S	65	77	75	Cloudy
28	S	SE		68	78		Fog Shower Cloudy

*The great rains and fall of water at Baltimore.

BALTIMORE MARKET, August 29.

There has been a DECLINE in Bank stocks during the last week, of 2 to 5 per cent, and buyers shy.

Bank of Baltimore 81¾a80½; sales as below reported. Merchants' 86½a86, asked, 82 offered. Union 58¾a56. Farmers' and Merchants' 25 bid. Farmers' and Planters' 20 7-8a21½. Western 14¾a14½. Franklin 7¼a7 3-8. Citizens' 13 cts. Sales of Farmers' Bank of Md. shares at $41.

State Loans heavy, nothing doing. 76¼ offered for 6's. Baltimore & Ohio Rail-road shares, 48a49—the uncertainty attending the payment of the annual dividend has deprived this security of its usual buoyancy, and sellers are numerous as buyers—6 per cent. Bonds of the Company are firm at 99¼. Coupons, 75a77, with full supply in market. Coffee, 5000 bags Rio sold the last week at 6¼a7. Cotton, market quiet—Mobile and Texas, 9¼, sales. Herrings, $4 25 per bbl. No. 3 Mackerel, $5a5.75—No. 1, $11—No. 2, $8. Feathers, 25a30. Flour dull; Howard st. brands offered at $3 87a3.90; some holders ask more, without effecting sales, except for very prime—Susquehannah and City Mills nominal at $4. Rye Flour scarce, and would command $3 for 1st. Corn Meal, Pen'a, $2.75. Wheat, supplies limited—sales of fair to prime reds at 70a80 for Maryland and Virginia, and of inferior to fair reds at 55a70c.—white, suitable for family flour, scarce, worth 105a113c.—sales of Pennsylvania red 81a82, do. white 90a92. Oats, 25a26¦ cts. White Corn, 48 cents—yellow, 50a52. Rye, 62c. for Maryland, 68c. for Pennsylvania. Molasses, Porto Rico, sales at 28 cts.—prime New Orleans wanted, and would bring 31a32 cts. Plaster, $2.62a$2 80. Beef, Western Mess, $9.50—No. 1, $6.75a7—prime, $5a5.50. Pork, Western $10.50a8.50, sales of small lots. Bacon, Western Shoulders, 3¼a5¼—Sides, 5¼—Hams, 5a9, according to quality and condition. Butter, Western and Glades, 8a11. Lard, No. 1, 7c. for kegs. Cheese, 8a10c. Sugar, New Orleans brisk, $6 37a6 72—Porto Rico dull, at $6.75a7.25—Whiskey, 22c. for hhds., 23c. for bbls. dull—wagon price 19c. exclusive of the barrel. Wool, no transaction of importance during the week. Tobacco, receipts continue large, but the quality, which is mostly of the lower grades, is not wanted—this causes a large accumulation in the hands of the agents and holders, who in order to effect sales, have to submit to lower rates, and prices have a tendency downwards.—We quote inferior and common Maryland $1.50a2 50. middling to good 3a5.50, good $6, and fine 7a12, Ohio $1.50 for common to middling, good $4.50a6, fine red and wrapper $10a12. The inspections for the last five weeks are: 6495 hhds. Maryland, 5545 hhds. Ohio, 91 hhds. Kentucky, 5 Pa.—Total, 12,136 hhds.

I. Potatoes 20a25 cts. per peck; sweet do. 2 cts. per do; green corn 8 to 12½ cts. per dozen.

BOMMER'S METHOD FOR MAKING MANURE—The subscriber has been appointed by Mr. Bommer, his agent for the Southern States, and will dispose of the Books, with the right to use them, for any sized farm, at $5 each. Address (post paid) ml SAML. SANDS, office of "A. Farmer."

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,

THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. S. Beard, T. Beard, Dr. Watkins, T. J. Hodges, T. Welsh, W. Mackall, J. Iglehart, A. Sellman, W. Hopkins, J. Kent, G. R. Gaither, all of Anne Arundel county; and to Messrs. R. B. Chew, J. V. Barber, W. Boswell, G. W. Weems, and Z. Howes, of Calvert co. Md. ☞Those wishing to examine the above articles are invited to call at my establishment in *Gillingham alley*, entrance from Howard st. 4 doors from Pratt st. Baltimore.

jun 1 CHAS. H. DRURY.

RUGGLES, NOURSE & MASON'S PLOWS.

THE subscribers have received an assortment of these justly celebrated plows, upon the self-sharpening principle, which can be highly recommended for their performence in the field, and for the goodness of material and workmanship in their construction. Sizes suited for 1, 2 and 3 horses—also, Subsoil Plows of different sizes and best quality.

R. SINCLAIR, Jr. & Co.,
Sep 1. Light Street, near Pratt—Baltimore.

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, $125.

JAMES MURRAY'S *CORN & COB CRUSHERS*—These already celebrated machines have obtained the premium by a fair trial against other Crushers exhibited at the fair held at Govanstown, Balt. co. Md. in Oct. 1843, and the increased demand enables the patentee to give further inducements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices $25, 30, 35, 40, 45.

ALSO—Small MILLS, which received a certificate of merit, for $15—I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics. Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. Also, a second hand Steam Engine, 16 horse power, and the works for 2 Saw Mills.

Any kind of Machine, Model or Mill-work built to order, and all mills planned and erected by me, warranted to operate well.

Patent Rights for the Corn and Cob Crusher for sale.

Jy. JAS. MURRAY, Millwright, York near Light st. Balt.

FARM MANAGER.—Wanted a situation as manager or agent on a large farm or estate by a farmer who has been educated on the border counties of England and Scotland, and upwards of three years in this country. Apply to

S. SANDS, Office of the American Farmer.

DURHAM SHORT-HORNS.

FOR SALE, several Young Durham BULLS, from 2 months to 2 years old, of the very best stock in the U. S. The character of the breeder of this stock is a sure guarantee of their purity; they are of the finest kind of Durhams, and are from the best of milkers. The owner having an extensive Dairy, and the demand for the products thereof being great, induces him to part with his young Bulls at very low rates—the Cow calves could scarcely be purchased at any price. The sum of $300 dollars has been offered within a few weeks for one of the cows, and refused. For further particulars apply to S. SANDS, publisher American Farmer.

Also several fine young DEVON BULLS, thorough-bred, about 4 to 5 months old, very fine animals—apply as above. jy1

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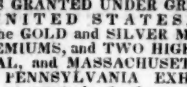

DECOMPOSITION.

THE "PREMIUM PLOUGH"—In PROUTY & MEARS' No. 5 1-2, "confessedly the best PLOUGH known in this country for beauty of work and pulverizing the soil," we have combined the most perfect swing as well as wheel Plough, connected also with the principles of self-sharpening and centre-draught, which with the facility of turning it into a Tandem 2, 4, or 3 horses abreast Plough in a minute of time, renders it the NE PLUS ULTRA of perfection. During the past season it received the first premium for the BEST PLOUGH, at Philadelphia; a first, second and third premium at New Castle county, Del.; the Imperial Medal of Russia, of massive gold, value $300; and at Prince George's society, Md. the highest testimony of approbation, in not permitting it to compete, having already received the first premium as "the *BEST PLOUGH* for general purposes." Their one-horse Plough No. 2 1-2, is strongly recommended for light soils and horticultural purposes, being built after the same model, self sharpening, and carrying a sod furrow 10 in wide with great ease and precision.

For sale at No. 55 LIGHT ST. Baltimore, MR. EZRA WHITMAN being appointed sole Agent for sales in Baltimore and vicinity. Fe 1

AGRICULTURAL IMPLEMENTS for sale at No. 7 Bowly's wharf, Baltimore, by WM. GAWTHROP & SON.

We offer to Farmers and Planters our Premium Double Corn Shellers, which have proved themselves to be the very best now in use—we have on hand one of the best selections of PLOWS in the state, the castings of which are the composition metal, with chilled heels, points and edges; our plows embrace the Minor & Horton from 6 inch. to 12, so much used in the North; it is one of the lightest draught plows in use—we have the Wiley improved, and the old pattern of the N. York manufacture, which is known without comment. Also, the Prouty, Chenoweth, Self-sharpening, Davis, and all other kinds; Plow Shears and Points for all kinds of Plows; Fans, Straw Cutters, Corn and Cob Crushers, and all other kinds of Implements used in farming—we also keep all kinds of Field Seeds—we do a general commission business in Grain, Seeds and Country Produce. Fe

The "Simon pure," and invincible WILEY PLOW still in the field—A. G. MOTT, at No. 38 ENSOR STREET, near the *Bel-Air Market*—Manufacturer and Vender of Implements of Husbandry, viz. *Plows, Harrows, Cultivators, Grain-Cradles, Wheat-Fans, Corn-Shellers, Straw-Cutters*, Endless chain *Horse Powers, Thrashing Machines, &c. &c.*—through this medium, would apprize the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE WILEY PLOW (right and left hand) composed of the real "simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about *two cents* per acre, for blacksmith's bill.—If you are for bargains, call, or send your orders, for he guarantees his Implements good as the best, and cheap as the cheapest, *for Cash*, and delivered in any part of the city free of charge—plow castings by the piece or ton; old Implements repaired on he most reasonable terms. Orders addressed to A. G. MOTT, Baltimore, will receive prompt attention. dec. 1

FOR SALE—A full blood South Down BUCK, from one of the best South Down Ewes, in Virginia, and got by the famous Buck presented a few years ago to Bishop Meade, of Va.—*his sire weighed at 6 months old 150 lbs.*—He is a beautiful and large sheep—Price $25, delivered caged in this city.

Also, a Buck, 1 year old, got by a full bred South Down Buck, bought of Mr. Bement, of Albany, and out of a half-bred Bakewell, or Leicester ewe—Price $12, delivered as above.

Also, a South Down Buck, with a small cross of Leicester, a very fine animal.—Price $20. Apply to *S.* SANDS, office of the American Farmer. Sep 1

ETRURIAN WHEAT.—A small lot of this Wheat, raised by Mr. Goldsborough, of Dorchester Co. Md., can be had at the warehouse of Jas. Barroll & Son, Bowly's whf. se 1

ETRURIAN WHEAT, raised by the Rev. Mr. Zollickoffer, Carroll County, Md., for sale at the office of the American Farmer. Sep. 1.

PLOUGHS AND PLOUGH CASTINGS.—J. S. Eastman, at his old stand, Pratt street, has for sale a good assortment of Ploughs, suitable for fall ploughing, viz: Davis' Inproved 9 inch, and 9 inch Improved cast and wrought shears, do. do. 10 inch, do 12 inch or 3 horse.—Also, my Patent Cleazy self-sharpening Ploughs, 9, 10 and 12 inch—also, 10 inch Cleazy's 2nd improved Plough, and Snyder's Patent Ploughs, 10 inch right and left hand.—The same Plough works at pleasure, a wrought barshare, or a cast share, thus easily suited to different soils—also on hand a large stock of Plough castings of various Patterns at wholesale and retail, together with Horse Powers, Threshing machines, Harrows and Cultivators, and his Patent Cylindrical Straw Cutters, &c. &c., all at reduced prices—also, Landreth's Garden Seeds will be furnished to Gardeners by the pound. s. 1

AGRICULTURAL MACHINERY, IMPROVED PLOWS, &c.

The subscribers avail themselves of this medium to tender their thanks to their friends and the public generally, for their liberal patronage, and in support of their claims to its continuance, they offer to supply a general and complete assortment of the best AGRICULTURAL IMPLEMENTS and SEEDS, that can be procured—and upon terms which furnish a reasonable and liberal guarantee of satisfaction to purchasers.

Their RAIL WAY HORSE POWERS, for 1 and 2 horses, have recently been much improved, and the most satisfactory reference can be given of their performance.

LEVER HORSE POWERS, suited to 4, 6 or 8 horses constructed with especial care for strength and durability.

THRESHERS, of the best construction, adapted to the different powers, which will thresh from 75 to 300 bushels of wheat per day, according to the power applied.

FANNING MILLS, of several kinds; Rice's patent of two sizes from $25 to $30, generally much approved.

Also, WATKINS' PATENT FAN, a capital article at $45.

PLOWS, comprising a large assortment suited to the various kinds of land and purposes of the farmers, and to the still more diversified opinions of the operators. The "MARYLAND S. S. PLOW" upon the best self-sharpening principle, for strength, economy in use and superior work, we think possesses great advantages, and we recommend it with full confidence. Also, other Plows on the Winan self-sharpening principle, of different forms of mould board and of assorted sizes.

BOSTON PLOWS—In addition to the general assortment heretofore manufactured and kept for sale, we have made arrangements with Messrs. RUGGLES, NOURSE & MASON, of Boston and Worcester, for supplies of their improved Plows, containing the latest and best improvements used in that section of the country, and have received from them an assortment of Furrow Plows, Self-Sharpening and others, as well as Subsoil Plows and other articles, and invite inspection and trial of them.

SINCLAIR & MOORE'S PLOWS, with wrought and cast shears.

DAVIS' PLOWS, wrought and cast shears.

EVANS or CHENOWETH PLOW, self-sharpening cast shear.

BEACH'S self-sharpening, cast point and shear, called the Concave Plow.

WILEY'S cast shear improved Plow.

BARSHARE PLOW, wrought shear and coulter.

Treble or three furrow Plow, now a very popular and excellent implement for seeding wheat, &c.

Double or two furrow Plow, same construction, used as a cultivating plow and also for seeding.

SUBSOIL PLOW, of the best kinds and assorted sizes, 1 to 3 horses, with regulating rods, which vary the depth and land of the plow with ease and accuracy.

HILL-SIDE PLOWS, Barring Plows, &c.

Also for sale, Harrows, Barring Plows, &c.

CYLINDRICAL STRAW CUTTERS, 9, 11, 15, and 20 inch sizes; in our view decidedly the most efficient Cutter in use, for straw, hay, corn, fodder, and corn stalks.

Stevens' ever cutting Straw and Hay Cutters.

Oblique Straw Cutter and common hand Boxes at low prices.

Corn and Cob Crusher, valuable for preparing food for stock, $30.

Corn Mills of cast iron; price $40.

Corn Shellers, for hand and horse power.

Vegetable Cutters; Field and Garden Tools.

Garden and Field Seeds, &c. as usual.

Fruit and Ornamental Trees and Plants supplied to order. For particulars see catalogues.

sep 1 R. SINCLAIR, JR. & CO.

GUANO!!!

THE subscriber offers for sale, in quantities to suit,

110 tons superior ICHABOE Guano, at $30 per 2000 lbs.
60 " PERUVIAN " $41½ per 2240 lbs.
10 " AFRICAN " $25 per 2000 lbs.

These Guanos (warranted pure,) will be disposed of at the above reduced prices, and persons ordering may rely on every attention being given to its proper shipment, by such mode as they may direct. Address W. WHITELOCK,

Sep. 1 Corner of Gay & High streets, Baltimore.

EZRA WHITMAN'S WROUGHT IRON RAIL-WAY Horse Power and Thrashing Machine, of which more than one thousand are now in use—and as this is the only Horse Power or Thrashing Machine that has given general satisfaction, I take pleasure in giving a short description of it, with a list of prices.

1st. The frame of the Horse Power is made with five posts, on either side, and as many cross girths bolted together with *wrought* iron in the most substantial manner.

2d. The Rail-way, guides, circles, and all the connecting and fastening irons, are made of *wrought iron*, instead of cast iron.

3d. The gearing is at the end of the Power, where it is not affected by the wear, or liable to be broken by wild or false horses.

4th. It being made of wrought iron, there is no difficulty in giving sufficient width for the horses to travel with ease, and no more rods, wheels or fastenings in the *two horse* power, than in the one horse power.

☞Farmers wishing to purchase, will be particular to observe the above, as the great success of my machine, may bring others, of inferior construction, into our market.

I have the pleasure of referring to either of the following named gentlemen farmers, residing in the immediate vicinity of Baltimore, who have purchased my Horse Power and Thrashing Machine the past season, and who will no doubt be willing to give information respecting their utility,—viz:

Jesse Slingluff	James Swan	George Harryman
Jacob. Forney	William Gent	Daniel Bowly
Thomas J. Talbott	Owen Cecil	A. M. Johnson
Joseph Parks	George Jenkins	Charles R. Barney
Frederick Harrison	John Rider	Samuel Hutton

The cash prices for those articles are as follows, viz:

For Two Horse Power, $100—For One Horse Power, $75—with an additional charge for extra long shaft and extra pully, $5. For Thrasher which thrashes and cleans at one and the same operation, $100. For 24 inch Thrasher, with new improvement, $50—20 inch do. with do., $45—16 inch do., $40.

The prices of common Thrashers vary from 25 to $35.

EZRA WHITMAN, Jr.

April 1 No. 55 Light street near Pratt.

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